

Prevention and Control of AIDS

Clinical Management Modules

by

National AIDS Control Organization

05578

Community Health Cell

Library and Information Centre

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PREVENTION AND CONTROL OF AIDS

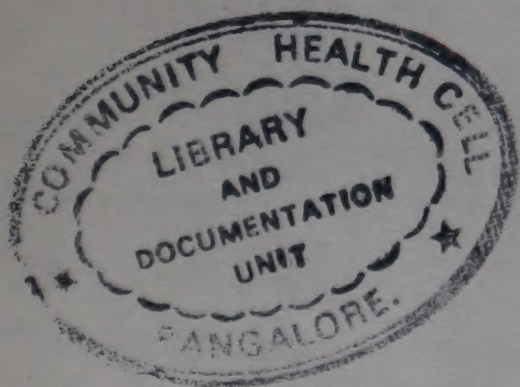
CLINICAL MANAGEMENT MODULE

Module 1

NATIONAL AIDS CONTROL ORGANIZATION
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Ministry of Health & Family Welfare
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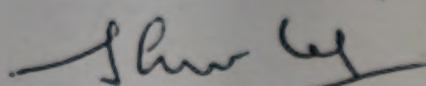
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PREFACE

AIDS the acronym of Acquired Immuno Deficiency Syndrome is spreading all over the world in an epidemic proportion. World wide more than 12 million people are infected with the virus causing AIDS. The great majority is in Africa, particularly the sub-saharan area. Asia is poised to become the plague's next epicentre. In India, the disease was not known till 1986. In that year the first case of AIDS with opportunistic infection was detected in the year 1987, but he got the infection after blood transfusion abroad. The number of HIV infected persons is rising steadily in this country. As the disease is known to have a long incubation period on average of 5-10 years, now the cases of AIDS with AIDS related illnesses and various opportunistic infection will start rising.

As most of the practising doctors graduated before the AIDS era, the diagnosis of AIDS/HIV infection related diseases are missed too often resulting in significant loss not only to the patient but also to the community. As is already known the disease as of itself has no treatment or vaccination, only the opportunistic infection has to be treated and symptomatic relief is to be given to the patient.

This module which is developed for the clinical diagnosis and management of AIDS/HIV infection is made so that uniform teaching pattern is imparted to all doctors of the country. I hope this module will be useful for doctors of the various institutions for AIDS diagnosis and management. This module has been thoroughly pre-tested and reviewed by leading physicians of the country and I am hopeful that this will serve us as a useful guide for the doctors who in the coming years have to deal with more and more cases of AIDS/HIV infections.


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FOREWORD

No disease in modern times has had quite an impact on the civilised world as has the Acquired Immuno Deficiency Syndrome(AIDS). The disease had rapidly affected nearly 12 million people all over the world. The impact of the epidemic is more dramatic in Sub Saharan Africa. In the next few years Asia is supposed to be the next epicentre of the epidemic. In India, the disease has entered late, and as such the AIDS with AIDS related illness and various opportunistic infections are now appearing in an epidemic proportion.

Amidst the social and political upheaval precipitated by the AIDS epidemic, a critical problem has silently but steadily emerged; who is to provide care for the increasing numbers of afflicted individuals? There is desperate need for physicians who would provide skilled care for these patients.

This module on Clinical Management and diagnosis of AIDS is prepared to train physicians who would be managing and diagnosing cases of late AIDS with AIDS related illness and various opportunistic infections. As yet there is no cure or vaccine against AIDS, what a physicians can do is to provide relief to the affected persons.

This module gives an outline of the diagnosis of AIDS and the management of opportunistic infection, each chapter is followed by an exercise which serves to provide a brain storming session after each chapter. This training module will be helping in training the physicians who have graduated before AIDS era and will serve as a manual while taking care of the AIDS patients.


(P.R.DASGUPTA)

A C K N O W L E D G E M E N T

The module of "Clinical Management of AIDS" could come in the present form after thorough scrutiny and reviews. The first draft was prepared in December, 1992. It was subjected to a peer review. The document was then pre-tested at 10 training workshops involving about 400 specialists mostly belonging to teaching faculty. Based on the comments at pre-testing the module was reviewed by the Expert Committee consisting of eminent medical scientists involved in the AIDS diagnosis and management.

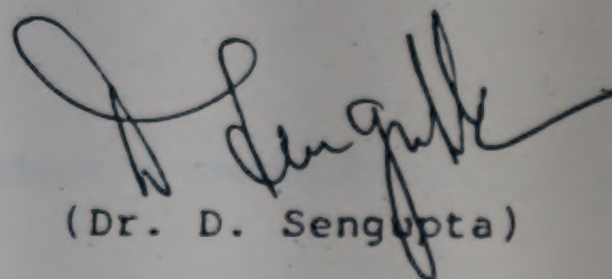
The second draft was prepared after review by this Expert Committee.

The second draft was again pre-tested at the National Trainers' Workshop. The W.H.O have been involved in the preparation of the module from the very beginning. The final module in the present form is a result of continuous evaluation, reviews and editing.

I will very much like to thank all these who have been involved in the preparation of this module. However, very number is a limiting factor. The training centres and names of the co-ordinator of the workshop, names of the Expert Committee Members and names of W.H.O. experts are given in the appendices in the module. I place on record my thanks to all these experts in the field.

I will like to specially thank Shri P.R. Dasgupta, Project Director and Additional Secretary, National AIDS Control Organisation and Dr. Shiv Lal, Addl. Project Director (Technical) for their consistent encouragement and support without which it would not have been possible to produce this module. I am grateful to Dr. Sam Kaliwala of W.H.O, Geneva, without whose help the first draft could not have been produced in a record time.

I sincerely thank all the friends, colleagues and staff of National AIDS Control Organisation and of World Health Organisation. GPA-1, WR Officer, SEARO, Director General of Health Services and Ministry of Health for providing literatures and technical support.



(Dr. D. Sengupta)

Contents

Section	1.1	Diagnosis of HIV
	1.2	Laboratory Diagnosis of HIV Infection
	1.3	Clinical Examination
	1.4	Special Issues in Children and Women

HIV/AIDS CLINICAL TRAINING MODULE

INTRODUCTION

This manual is a brief guide to the training of physicians in the diagnosis and management of AIDS related conditions. It is specifically targeted to the physicians working at a referral hospital, usually an internist or specialist on infectious diseases.

The type of AIDS care demonstrated in this module is based on the WHO "Guidelines for the Clinical Management of HIV Infection in Adults" WHO/GPA/IDS/HCS/91.6. It is assumed that the target trainee will have enough diagnostic and care facility to deliver the type of AIDS care stipulated in this module. Thus, the physician should be practicing at a referral hospital with the following diagnostic facilities :

- Blood gas analyzer
- X-ray
- Microscopy and bacteriological culture
- Tissue biopsy and histology
- Endoscopy (Gastro-intestinal)
- Bronchoscopy
- Pulmonary Function Tests
- Serology
- May or may not have computerized Tomography

The module has been designed to enable experienced AIDS care physicians (herein designated, "Trainers") to train other physicians at a State level, in skills of AIDS diagnosis and management. Most of the information given in this module is part of the usual training of physicians. The module, however, aims to point out those aspects of history taking, clinical examination, laboratory investigation and treatment that will need to be enhanced in order to identify and appropriately manage conditions characteristic of HIV/AIDS.

No attempt has been made to explore the microbiological and pharmacological basis of the recommended diagnostic criteria and management protocols. It is assumed that the trainer, if in doubt, will be able to make use of formal text books of medicine to resolve these doubts. It is important that before the trainer uses this module, they take time to investigate the information presented herein. A clinician experienced in managing HIV infection should not expect to agree with everything in this module, as there are often more ways than one of managing a given AIDS condition.

SPECIAL NOTE TO TRAINERS

Trainers should be familiar with the WHO "Guidelines for the Clinical Management of HIV Infection in Adults", WHO/GPA/IDS/HCS/91.6, sections of which have been included in this training manual. They should also be personally experienced in AIDS diagnosis and management.

Each section of the module is presented as a topic, with :

- a teaching goal, which reflects what you the trainer aims to achieve by teaching this section of the module.
- a learning objective, which reflects what the participants should be able to do, at the end of the session, as a result of the teaching.

- Training material, which is the text of knowledge or skill intended to be passed on to the participants. This is described under an "Information Note" with the same number as the particular section of the module e.g., II A. Extracts from other publications (essential for the training) are also included.
- Training Strategy, which is a suggestion of an appropriate method of conveying the knowledge and skills to the participants. An effort has been deliberately made to discourage the trainers from delivering long lectures. Discussions and group work are preferred since the material is usually not new and since these methods have been seen to be more useful in in-service training and adult learning.
- Assessment exercises, which serve the dual purpose of clarification of information, and of evaluating the amount of knowledge gained by the participants out of the session.

A recommended training programme (agenda) structure is to conduct the training consecutively over a period of 4 days. Didactic Sessions (Lectures and Knowledge delivery sessions) should preferably be given in the mornings while group work as well as discussions could be conducted in the afternoon.

Didactic sessions to be arranged in the morning should include : a) virology of HIV, b) transmission, non-transmission and prevention of spread of the virus, c) Epidemiology of HIV in India, d) Clinical features, e) diagnosis, f) management, g) counselling and four hours daily in the morning for successive four days of the workshop may be allotted for these topics.

MODULE - 1.1

DIAGNOSIS OF HIV/AIDS

Module 1.1 1 hour

Topic	:	Suspicion of symptomatic HIV infection
Teaching Goal	:	To sharpen the participants clinical acumen in order to suspect symptomatic HIV infection in a patient.
Learning Objective	:	<p>On completion of this session, the participants should be able to demonstrate an understanding of the clinical conditions commonly associated with symptomatic HIV infection by :-</p> <ul style="list-style-type: none">- outlining clinical conditions most commonly associated with symptomatic HIV infection.- outlining the risk factors involved in HIV infection;
Materials	:	See Information note 1(A)
Training strategy	:	<p>The trainer should deliver a short lecture on</p> <ul style="list-style-type: none">(a) Mode of HIV Transmission(b) Symptomatology of conditions associated with HIV infection. <p>A discussion should be held with participants to identify criterion to be used in suspecting HIV infection in a patient. The trainer should ask provocative questions like</p> <ul style="list-style-type: none">- should every person who has sex with more than one partner be suspected of HIV infection?- should every patient presenting with cough for more than a month be suspected of HIV infection? <p>The results of this discussion should enable the participants to develop criterion for suspecting HIV/AIDS infection in a given patient.</p>
Assessment exercises	:	The participants are asked to read exercise 1A and answer the questions which follow. The correct answers are given in a separate answers book.

MODULE 1.1

DIAGNOSIS OF HIV/AIDS

INFORMATION NOTE: 1.1 SUSPICION OF HIV INFECTION

(i) **HIV/AIDS related clinical features:**

- Weight loss (recent, unexplained) of more than 10% of the baseline body weight
- Fever (continuous or intermittent) for more than one month (after malaria treatment has been given)
- Diarrhoea i.e. the occurrence of liquid stools 3 or more times a day, continuously or episodically for more than one month
- Cough for more than one month
- Oro-oesophageal Candidiasis (in patients not taking antibiotics)
- Oral hairy leukoplakia
- Severe prurigo
- Persistent generalized lymphadenopathy (Two or more extra inguinal lymph node enlargement persisting for 3 months or more)
- Kaposi's Sarcoma (Now considered as Kaposi's disease)
- High grade B Cell lymphoma
- Herpes Zoster especially Multidermatomal, age < 50 years
- Cognitive change
- Dementia in the young
- Stroke in the young
- Ulcers (Genital or perianal) for more than one month
- Skin infections (severe or recurrent) e.g. Warts, dermatophytes, folliculitis, seborrhoeic dermatitis,
- Extragenital molluscum contagiosum
- Drug reactions (previously not seen) e.g. thiacetazone, Sulphonamides
- Pneumocystis carinii pneumonia
- Miliary or noncavitary Pulmonary tuberculosis and extra pulmonary tuberculosis

- Toxoplasmic Encephalitis
- Cytomegalo virus retinitis
- Crypto coecal meningitis
- Bizarre neurological features

(ii) Risk factors

- Multiple sex Partners
- I/V Drug use/needle sharing
- Sex with known persons with AIDS or HIV infection.
- Sex partner(s) with known epidemiological risk factors or from an area of high prevalence of HIV infection.
- Male having penetrative sexual acts with males
- Recent History of STD specially genital ulcer disease.
- History of transfusion of unscreened blood, plasma, or any other blood product, or (even if screened) from an area of high prevalence of HIV infection.
- History of scarification, tattooing, ear piercing or circumcision using unsterile instruments.
- Babies born to HIV +ve mothers.
- Organ transplantation, artificial insemination, dialysis.
- Tonsuring of the head. (same razor being used for sharing heads of hundred people in this religious ritual).
- History of acupuncture

Exercise 1.1

A young man, aged 22 years, comes with a history of:

- irregular fever
- loss of weight
- cough

all for more than four weeks. No history of hemoptysis. On further interrogation he revealed a past history of sex with commercial sex workers and having subsequently been treated for genital ulcers at an STD clinic. On examination:

- Young emaciated man
- Pulse rate 100 per minute
- Febrile
- No lymphadenopathy
- Chest had crepitation on both sides, although air entry was normal.
- Other systems revealed no abnormality.

Questions

- (i) Would you suspect HIV infection in this patient?
- (ii) Give reasons for your answer.

A young women, aged 24 years comes with a history of

- Recurrent skin infection (staphylococcal)
- Weight loss
- Fever (unresponsive to antimalarial and antibiotics)

all lasting about six weeks. Examination revealed cervical lymphadenopathy and purulent skin infection on the fore arms and both legs.

Question

What would make you suspect HIV infection?

Assessment exercise 3

A young man went to a physician and said he had severe falciparum malaria associated with black water for which he was transfused 6 units of blood, only three of which had been screened for HIV. Since then, he said, he had lost considerable weight and he often felt low-grade fevers in the evenings.

The physician immediately took a sample of blood and tested it for HIV. The results were negative.

Questions

1. What was omitted in the history taking?
2. How could this omission influence the interpretation of the IV results?

MODULE - 1.2 (1½ hours)

LABORATORY DIAGNOSIS OF HIV INFECTION

Teaching goal	To enable the participants to understand the laboratory criterion for diagnosis of HIV infection.
Learning Objectives	<p>On completion of this session, the participants should be able to demonstrate an awareness of the different methods of HIV testing and their use in diagnosing HIV infection by exploring -</p> <ul style="list-style-type: none">- Biological variability of antibody test;- the different sensitivities and specificities of these tests;- the different sensitivities and specificities required for diagnosis of HIV infection amongst symptomatic patients as compared to screening of blood and anonymous, unlinked HIV surveillance.
Materials	Information note 1(B), WHO strategy for HIV testing, slides and overheads illustrating various HIV antibody tests.
Training strategy	<ul style="list-style-type: none">(a) Lecture on the tests and their variability(b) Demonstration of the tests by use of slides illustrating the testing techniques(c) Discussion of the reasons why a different testing strategy is required under various circumstances namely surveillance, blood donation, clinical need etc. Discussion should also be held with regard to the role of informed consent, pretest counselling, post-test counselling, confidentiality and partner notifications in HIV testing under clinical conditions.

INFORMATION NOTE: 1.2 LABORATORY DIAGNOSIS OF HIV INFECTION (both HIV-1 and HIV-2)

If a patient is suspected to have HIV infection, by history of risk factors and presence of HIV associated clinical features, the following protocol will be followed, for establishment of the diagnosis by laboratory tests, of HIV infection:

- (i) HIV antibody test by simple ELISA technique, if positive followed by:
- (ii) HIV antibody test by a second ELISA test using a different kit, if positive the diagnosis has to be confirmed by;
- (iii) Western Blot technique or by using an ELISA test of a different biological technique.

Different strategies of HIV testing are used, when HIV testing is done for purposes other than clinical diagnosis:

- (i) If HIV testing is done for safety of blood or donated organs, a highly sensitive, ELISA test (or other rapid test like HIV CHECK) is used and if positive, the blood or organ or the organ-donor is discarded.
- (ii) If HIV testing, is done for anonymous, unlinked surveillance, and a blood sample is found positive using two different ELISA techniques, it is reported as positive.

NB : Pre and post test counselling should be provided according to the national guidelines on HIV testing. Also see Annex-I, WHO HIV testing Strategy.

Exercise 1.2

1. A young man aged 29 years dropped in an outpatient clinic saying he was worried because he had donated blood for a relative, but the blood was not used. Some how he came to know that the blood was found to be HIV positive. He revealed a history of having sex with two unknown girls sometime back.

A sample of his blood was then taken, at the outpatient clinic, and tested for HIV in a laboratory. After two weeks he returned for results and was told that he was HIV negative.

Question

(i) What is the problem demonstrated in this case study?

2. A 26 year old man is reported to have donated blood one month ago. He was informed that his blood was negative for HIV infection. He was so happy on hearing news that he decided to reduce his sexual partner from 3 to 1. In addition he thought it was time he got married and settle down.

To be sure, he elected to take another HIV tests (one month after donation) and he was later surprised to be told that his results are HIV positive.

Question

(i) What is the problem illustrated in this case study?

MODULE 1.3 (1 hour)

CLINICAL EXAMINATION

- Teaching goal** : To provide the participants with the necessary knowledge for the diagnosis of symptomatic HIV infection on clinical grounds.
- Learning Objectives** : On completion of this session, the participants will be able to demonstrate an understanding of the clinical presentation of symptomatic HIV infection by discussing clinical signs of common AIDS related conditions.
- Materials** : See information note 1(D). Pages of WHO clinical care guidelines.
- Training Strategy** : The trainer should guide the class through an exercise of identifying various signs of HIV disease according to systems and linking these signs to specific symptoms in order to identifying the likely diagnosis for example.
- (i) an observation of oropharyngeal thrush and linking with symptoms of dysphagia/Odynophagia to make a diagnosis of oesophageal thrush.
 - (ii) observation of cyanosis, tachypnoea and linking it with history of exertional dyspnoea to make a diagnosis of pneumonia.
- Assessment exercises** : (i) Give a series of mini case studies and ask the participants to apply the clinical data on the WHO clinical care algorithms for diagnosing HIV disease.

INFORMATION NOTE: 1.3 CLINICAL EXAMINATION

(i) General Survey

To be done in the usual way with emphasis on

- Body weight
- Main liner's marks on skin (Needle stick marks for injecting drug use)
- Lymph nodes

(ii) Respiratory System

To be done in the usual way with an alertness for not to miss

- Tuberculosis and
- Pneumocystis Carinii Pneumonia

(iii) Gastro Intestinal System

- Oral cavity
- Ulcers
- Thrush i.e. the presence of whitish plaques on the oral mucosa. These plaques, usually located on the palatal buccal mucosa, can be removed to reveal a raw bleeding surface,
- Hairy leukoplakia i.e. the presence of firm vertical ridges on the lateral edges of the tongue. These ridges can not be easily removed by scrapping.
- Necrotizing gingivitis
- Severe dental caries
- Tonsillar fornices
- Oropharynx (thrush)
- Kaposi's sarcoma (Purple firm lesions especially on the hard palate)

(iv) Abdomen including per-rectal examination

- Shape of the abdomen
- Splenomegaly
- any mass in any quadrants
- tenderness

(v) Genito Urinary System (including pari-anal area):

- Genital ulcers
- Warts
- Genital discharges
- Condyloma Lata
- Herpes lesions
- Fungal infections like candidiasis (wet-scaly lesions)
- Look for circumcision
- Per vaginal examination

(vi) Central Nervous System

To be done in the usual way with emphasis on ophthalmoscopic examination.

(vii) Cardiovascular

To be done in the usual way with emphasis on

- Splenomegaly
- Body temperature
- Heart murmurs
- Skin emboli marks

(viii) Skin

To be done in the usual way with emphasis on

- marks for Herpes Zoster Lesions
- needle prick marks

(ix) Pediatric : General examination

Do a general examination for any new clinical development and keep a special look-out for the following conditions:

a) Neurological conditions :

- Reduced head size
- Poor muscle tone
- Poor developmental progress
- Encephalopathy
- Meningitis

b) Upper respiratory tract conditions:

- Oral candidiasis (thrush)
- Otitis media
- Tonsillitis
- Pharyngitis

c) Lower respiratory tract conditions:

- Acute pneumonia
- Tuberculosis
- Pneumocystis carinii

d) Parotid gland - enlarged

e) Lymph nodes - Swelling : axilla, neck and

groin

f) skin conditions:

e.g Herpes Zoster, herpes simplex, dermatitis/eczema, bacterial infections.

g) Liver/spleen - enlarged

h) General problems:

- Weight loss
- Malnutrition
- Pallor (anaemia)
- Fever

Failure to thrive or weight loss is worrying in a child with HIV-infection and may be the first sign of an underlying infection or development of AIDS.

Exercise 1.3

1. A man aged 41 years comes to the medical O.P.D. with a history of fits and abnormal movements. On examination, there was flaccidity of the limbs. His speech was not very coherent. A diagnosis of focal epilepsy was made. However, the EEG revealed no abnormality.

On further questioning he gave a history of repeated bouts of diarrhoea, he also revealed a history of having sex with commercial sex worker.

A careful clinical examination revealed an axillary lymphadenopathy and some oral thrush and it was decided that his blood be tested for HIV. The result was positive.

Questions

- (i) What two important signs were missed out on the first examination of the patient?
- (ii) What further clinical examination would need to be done in relation to these two signs?
- (iii) What should be the possible differential diagnosis of neurological features observed here.

2. A lady brought a child one year old with the following complaints:-

- i) The child is not gaining weight and becoming weak day-by-day.
- ii) He is off and on getting attacks of loose motions 4 to 5 times a day.
- iii) He has white spots all through the oral cavity.

Questions

- (i) What do you think the child is suffering from?
- (ii) Differential diagnosis of the case.
- (iii) What advice is to be given to the attendant of the child?

3. A man aged 26 years presents with a history of loss of weight, fever, unproductive cough and swelling in the mouth for the last two months.

Examination revealed a waster febrile man with a purplish red swelling on the hard palate. He had a cervical lymphadenopathy chest x-ray revealed bilateral plural effusion and a left middle zone infiltrates.

MODULE - 1.4

SPECIAL ISSUES IN CHILDREN AND WOMEN

Teaching Goal

To enable the participants to recognize and manage clinical conditions specific to HIV affected children and/or HIV in feeding women.

Learning Objective

On completion of the lesson the participants should be able to evaluate the clinical symptoms of HIV infection in women and children and prescribe appropriate treatment and to advise on immunization and breastfeeding.

Materials

Information Note 6, Guidelines for clinical management of HIV infection in children, EPI Update No.24, 1993, WHO/GPA Statement on breastfeeding.

Teaching Strategy

The group is divided into five to eight participants. Each group will select one chapter of the WHO guidelines, discussing the decision tree and the annotations. Suggested chapters are : persistent fever, failure to thrive, and respiratory conditions.

INFORMATION NOTE - 1.4

COMMON HIV ASSOCIATED CONDITIONS IN CHILDREN

- 1) Failure to thrive (gain weight) or malnutrition
- 2) Persistent and generalized lymphadenopathy and/or enlarged liver and spleen
- 3) Recurrent or persistent diarrhoea
- 4) Oral thrush
- 5) Prolonged fever
- 6) Fever and often recurring bacterial infections

Organisms include pneumococci, staphylococci, streptococci, hemophilus influenza and salmonella.

These infections may cause upper respiratory tract infection, including otitis media

- 7) Swelling of parotid gland
- 8) Tuberculosis
- 9) Lymphoid interstitial pneumonitis
- 10) Opportunistic infections are a sign of late state HIV infection and may include:
 - repeated oral thrush
 - tuberculosis
 - pneumocystis carinii pneumonia
 - disseminated viral infections, especially herpes or cytomegalovirus
 - toxoplasmosis
- 11) Neurological damage of HIV may result in encephalopathy. It does not correspond to immune status. Signs of encephalopathy include:
 - developmental delay or regression of milestones already reached
 - seizure (fits)
 - reduced head growth
 - other abnormal neurological findings.

CERVICAL DISEASE AND HIV INFECTION

Some studies have shown that HIV infection may increase the risk of neoplasia in the genital tract, especially carcinoma of the cervix. Therefore, - a PAP smear of the cervix on all HIV infected women should be done every 12 months. Women with abnormal PAP smear should be referred for gynecological examination.

Exercise 1.4

1. A young mother who is breastfeeding her baby consults a doctor because her husband has come down with AIDS. On subsequent examination, both the mother and her 10 month old child are found to be HIV positive. The mother would like to know if she should continue breastfeeding.

Questions

- (i) What additional information is needed?
- (ii) What advice you would give to the mother?

PREVENTION AND CONTROL OF AIDS

CLINICAL MANAGEMENT MODULE Trainer's Guide and Information Notes (In collaboration with World Health Organization)

**National AIDS Control Organization
Government of India
Ministry of Health & Family Welfare
1 Red Cross Road, New Delhi-110 001**

Contents

Section	2.1	Laboratory and other investigations for diagnosing opportunistic infections
	2.2	Assessment of General condition
	2.3	Symptomatic Management
	2.4	Specific Treatment aimed at different etiological agents
	2.5	Empirical Treatment
	2.6	Patient follow up protocol
Annexes		
	I	WHO Recommendations for HIV testing strategies according to test objectives and prevalence of infection in the population
	II	1987 revision of CDC/WHO case definition for AIDS surveillance purposes
	III	Provisional WHO clinical case definition for AIDS
Appendixes		
	I	Coordinators
	II	Review Committee
	III	Final Review

MODULE 2.1 - (1½ hours)

LABORATORY AND OTHER INVESTIGATIONS FOR DIAGNOSING OPPORTUNISTIC INFECTIONS

- Teaching goals** : To enable participants to develop an understanding of the use of laboratory and other investigations for making a definitive diagnosis of different opportunistic infections related to AIDS.
- Learning Objectives** : After the end of the session, the participants will demonstrate an understanding of laboratory diagnosis of opportunistic infections by outlining the types of investigations and expected results for making definitive diagnosis.
- Materials** : Information note 2.1, Information notes 2.1.
- Training Strategy** : The trainer gives a short lecture on the different tests according to body systems affected by different opportunistic infections.
- Assessment exercises** : After the end of the lecture, the participants will do exercise 1E.

INFORMATION NOTE 2.1

LABORATORY AND OTHER INVESTIGATIONS FOR OPPORTUNISTIC INFECTIONS

(i) **Respiratory conditions** (ALL INVESTIGATIONS SHOULD BE RELEVANT AND DIRECTIONAL/BATTERY OF INVESTIGATIONS SHOULD NEVER BE ROUTINELY EMPLOYED)

- Chest X-ray. In most HIV infected patients with immune deficiency, the X-ray is consistent with primary rather than reactivated TB, with hilar and/or mediastinal lymphadenopathy and localized middle or lower lung field infiltrates. The Chest X-ray is abnormal in more than 90% of documented cases of Pneumocystis Carinii Pneumonia, typically showing bilateral interstitial infiltrates.
- Sputum : (if no sputum is available induce by 3% Sodium Chloride-nebulizer)
 - Zeil Nelson Stain of AFB's
 - Giemsa or toluidine blue staining (for Pneumocystis Carinii)
 - blood test
 - (a) for full haemogram
 - (b) for erythrocyte sedimentation rate (by wintrobe's method)
 - (c) arterial blood gas analysis (ABG)
 - (d) Blood culture for Mycobacterium tuberculosis
 - skin test - tuberculin (PPD .1ml)
 - (Could be frequently negative in presence of active tuberculosis due to anergy)
 - bronchoscopy is helpful in identifying an infectious (microscopy and culture) or neoplastic histology) etiology. For the diagnosis of P.Carinii Pneumonia, broncho alveolar lavage can replace transbronchial biopsy.

(ii) **Conditions of the Gastro Intestinal Tract.**

(ALL INVESTIGATIONS SHOULD BE RELEVANT AND DIRECTIONAL, BATTERY OR INVESTIGATIONS SHOULD NEVER BE ROUTINELY EMPLOYED)

- Stool microscopy - (Cryptosporidiasis, Isospora Belli, Giardia lamblia, Entamoeba histolytica; Strongyloid stercoralis)
- RBC's and Leukocytes
- Stool for culture - (especially for shigellosis, salmonellosis, campylobacteriosis, AFB)
- Blood culture, (if patient is febrile or toxic to rule out salmonellosis, shigellosis or invasive mycobacterium avium).

- Endoscopy (for oesophageal candidiasis, herpes simplex infection, Kaposi's Sarcoma)
- Sigmoidoscopy - for anal herpes, Kaposi's Sarcoma, non-specific colitis.

(iii) **Central Nervous System:**

(ALL INVESTIGATIONS SHOULD BE RELEVANT AND DIRECTIONAL, BATTERY OR INVESTIGATIONS SHOULD NEVER BE ROUTINELY EMPLOYED)

- CSF Examination for meningitis (Bacterial, Tuberculosis, Cryptococcal and Aseptic). Figure 1 shows the use of CSF examination in diagnosis of CNS conditions manifesting as headache.
- Serology for Toxoplasmosis
- CSF for VDRL test
- Computerized Tomography Scan (CAT Scan)
- for any brain mass or lesion like toxoplasma, tuberculoma, lymphoma.
- AIDS dementia, signs of premature atrophy of the brain

Figure - 1

Value of CSF examination in the patient with symptomatic HIV-infection and headache

Etiology	Microscopy	Culture	Cell count	Serology	Biochemistry
Pyogenic bacteria	+	+	+	-	-
Cryptococcus neoformans	+	+	-	+	-
Mycobacterium tuberculosis	+	+	-	-	+/-
Treponema pallidum	+/-	-	+	+	+

Key + useful; - not useful; +/- may be useful

(iv) **Genito Urinary System**

- Blood test - VDRL
- Genital Smear - for gram staining (gonococci, candida, H.Ducreyi, Trichomonas)

- Culture for gonococci and hemophilus ducreyi
- Tissue impression smear for donovanosis

(v) **Generalized lymphadenopathy**

- Figure II demonstrates the use of investigations in diagnosis of the Etiology of lymphadenopathy
- Fine needle aspiration biopsy and cytology.

Figure - 2

Value of investigations used in the patient with symptomatic HIV infection and lymphadenopathy:

Etiology	Chest X-ray	Serology	Lymph-node culture	Microscopy
Tuberculosis	+	-	+	+
Syphilis	-	+	-	+
Fungal infection	+/-	+/-	+/-	+
Kaposi sarcoma	-	-	-	+
Lymphoma	+	-	-	+

Exercise 2.1

1. A young lady comes to the medical emergency of a local hospital complaining of cough with scanty expectoration, rapid breathing. On examination she looked ill, respiration rate was about 35/minute, she was mildly cyanosed. Her chest x-ray was reported to show bilateral opacities and blood report showed raised erythrocyte sedimentation rate. She was put on anti tuberculous regimen. Next day she reported to the consultant that her breathing got worse whenever she tried to walk to the toilet. The consultant reviewed the x-ray and said it was very typical of a certain condition and immediately made a decision to test the sputum and to test for HIV.

Questions

- (i) What do you think the consultant observed in the x-ray?
- (ii) What HIV related condition is this typical of?

2. A 37 years old women is admitted because of severe headache, that has started one month ago. Initially she had a short episode of fever, but no neurological signs. She has been to a local doctor who prescribed pain medication. However, the symptoms less become worse. While taking a history the woman reported to a positive HIV test, done 3 years ago. On physical examination she has some meningismus but no other physical finding.

Questions

- (i) What is the likely diagnosis?
- (ii) How do you proceed with this patient?

3. An HIV infected patient with fever and productive cough for 2 months. He had also lost more than 10% of his original body weight. His sputum was positive for AFB.

Questions

- 1. Is the information provided enough for this case to be diagnosed as AIDS?
- 2. Give reasons for your answer?

MODULE - 2.2

TOPIC - ASSESSMENT OF GENERAL CONDITION

Teaching goal	:	To enable the participants to identify clinical status of patients that may require immediate attention on presentation irrespective of HIV status.
Learning Objective	:	<p>On completion of this session, the participants should demonstrate an understanding of the role of making a quick assessment of the general condition of a patient by outlining the importance of assessing -</p> <ul style="list-style-type: none">(i) mental state(i) state of hydration(iii) state of respiration(iv) level of pyrexia and(v) state of nutrition
Material	:	See Information Note 2.2
Training Strategy	:	The trainer should present the information in 2.2, using overhead transparency and guide the participants in discussing the assessment of each of the clinical status. The group should also discuss whether the approach to clinical assessment will differ according to the primary etiology of the condition.
Assessment Exercises	:	See Exercise 2.2

MODULE 2: MANAGEMENT OF HIV/AIDS

INFORMATION NOTE: 2.2

ASSESSMENT OF GENERAL CONDITION

As part of the general management of a patient, a necessary first step is to assess the general condition of the patient. Physicians should understand that a definitive diagnosis (especially HIV testing), is not a prerequisite to immediate care where indicated. In particular, the following conditions should be assessed, and immediate care given wherever indicated before any definitive diagnosis or management is done.

2. Assessment of dehydration

Clinical Features	D e h y d r a t i o n	
	Moderate	Severe
General appearance/ Condition	Restless, irritable	Altered sensorium; apprehensive, cold, sweaty, cyanotic extremities
Pulse	Rapid	Rapid, feeble, sometimes impalpable hypotension
Blood pressure	Normal	
Respiration	Deep, may be rapid	Deep and rapid
Skin elasticity	Pinch retracts slowly	Pinch retracts very slowly (> 2 Sec.)
Eyes	Sunken	Deeply sunken
Mucous membranes	Dry	Very dry
Urine flow	reduced amount and dark	None passed for 6 or more hours, empty bladder

3. Assessment of Respiratory Distress

Clinical features	Respiratory Distress	
	Moderate	Severe
Dyspnoca	On minimal exertion	At rest
Pulse	Normal	Rapid
Ventilatory effort	Flairy Nose, Using accessory muscles	Intercostal drawing
Signs of Hypoxemia	Mild cyanosis	Deep Cyanosis
Respiratory rate	>normal & < 35/min.	35/min.

4. **Assessment of Pyrexia (axillary)**

- Low grade fever $< 40^{\circ}\text{C}$ $> 38^{\circ}\text{C}$ with or without delirium
- High grade fever 40°C or more with or without delirium

5. **Assessment of Mental State**

Clinical Features	Mental State	
	Mild impairment	Severe impairment
Personality state	<ul style="list-style-type: none">- Loss of concentration- Mild confusion- Mild cognitive impairment	<ul style="list-style-type: none">- Dementia- Severe psychosis
Level of consciousness	<ul style="list-style-type: none">- Drowsy/semiconscious- Responds to painful stimuli	<ul style="list-style-type: none">- Unconscious- Does not respond to painful stimuli

6. **Assessment of nutritional status:**

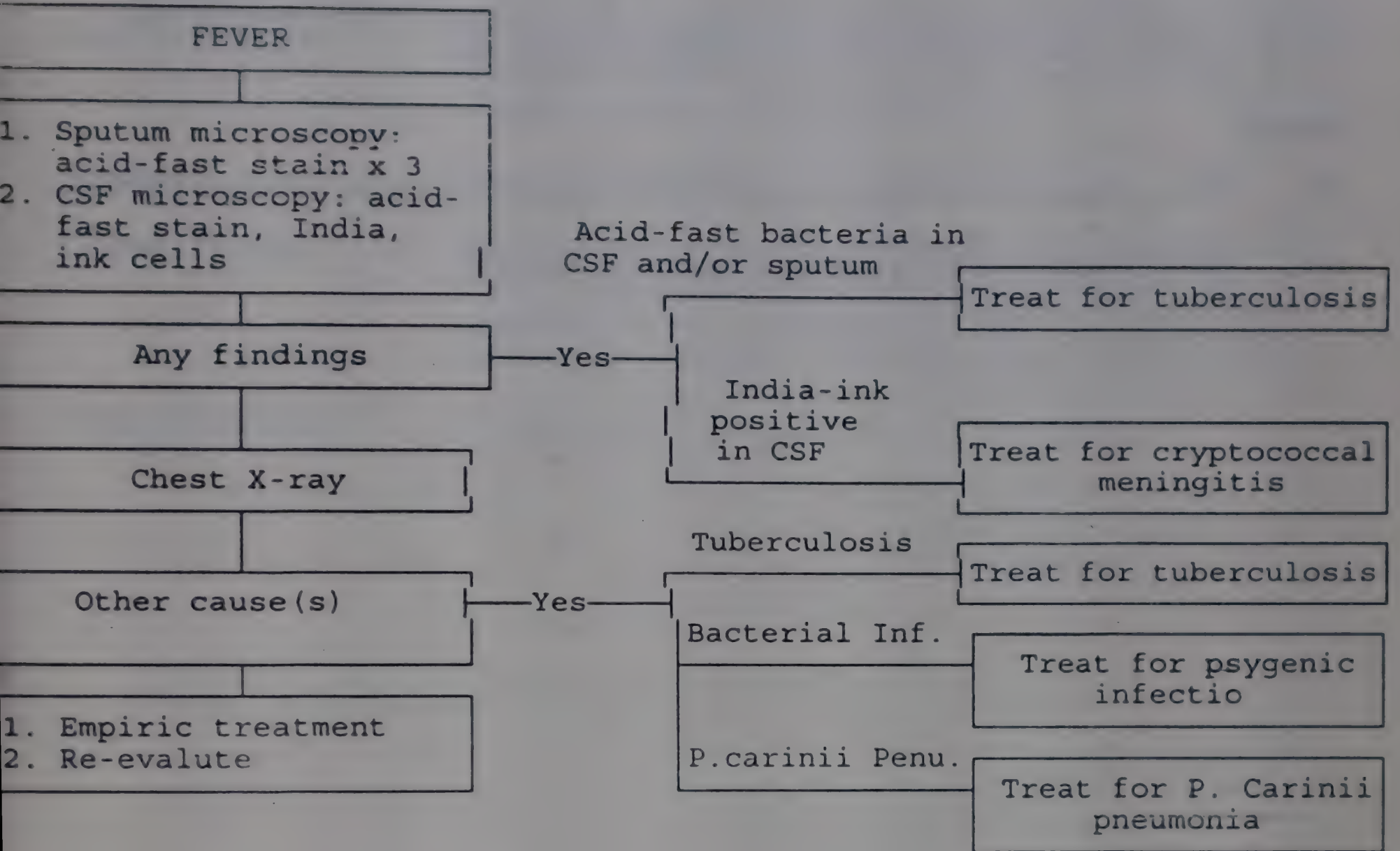
(Ideally to be done by body mass index) Beside methods should include the

- measurement of weight for height
- wasting of muscles and body fat (100k at the ghiteal region, Supraclavicular region, mid-arm circumference)

Classification may be done as

- mild - underweight and loss of subcutaneous fat
- Severe-extreme wasting and cachexia

FEVER



Exercise 2.2

1. A 21 years old man with HIV infection and herpes zoster is discharged from the hospital. He will now return to his family, wife and two children in a slum area. Which advice do you give to this man, who is otherwise healthy?
2. A 35 years old middle class man comes to the out patients department complaining of persistent headache for the past 3 months. He also gives a history of loss of weight during the same period. He has no other symptoms and is worried about his weight loss.

Questions:

- (i) What are the possible differential diagnosis for the cause of the headache and weight loss?
- (ii) What investigations will you perform to confirm the diagnosis?

MODULE 2.3 (45 min.)

SYMPTOMATIC MANAGEMENT

- Teaching goals** : The purpose of this session is to sensitize the participants of the general management of an HIV infected patient.
- Learning Objective** : At the end of the session, the participants should be able to outline the general management of an HIV infected patient symptom by symptom regardless of the etiological cause.
- Material** : See Information Note 2.3
- Training Strategy** : In a Brain storm session, using the Flip Chart and a marker pen, the trainer records the participants answers the views regarding types of symptoms and their management that commonly occurs in HIV infection. The trainer should clarify issues using information in 2.3
- Assessment Exercise** : See Exercise II B.

INFORMATION NOTE: 2.3

SYMPTOMATIC MANAGEMENT

- (a) **Dehydration** : Give Oral rehydration solution, adequately if the patient is not suffering from mild dehydration and he is not vomiting frequently.
- If frequent vomit persists, parenteral hydration with intravenous fluids like normal saline, followed by 5% glucose in the ratio of 2:1 and potassium should be given in the form of Ringer's Lactate.
 - Anti Emetics like metaclopramide or domperidone and as soon as the patient can take by mouth, oral rehydration solution to be started.
- (b) **Diarrhoea** :
- Drugs like loperamide, opiates should be used with caution, especially in cases of bloody diarrhoea for fear of toxic mega colon and should not be used in the very young and elderly. In all cases institution of this therapy should only be considered if oral rehydration and antibiotic therapy have not helped.
 - Correction of dehydration if any.
 - Nutritional support, Patients with chronic diarrhoea should receive small frequent meals low in: residue, lactose, fats.
 - Paracetamol, aspirin may be given as required (2-3 times/day)
- (c) **Pyrexia** : In India Malaria is endemic. Any febrile patient should immediately be tested for Malarial parasites and if positive, treated accordingly. But if repeated tests are negative and no other cause of fever is detected, empirical anti-malarial treatment should be instituted as follows:
- Chloroquine (oral) - 600 mg(base), stat followed by 300 mg after 6 hours and then 150 mg twice daily for 2 days.
 - Anti pyretic like paracetamol (600 mg) - 2 to 3 times a day.
 - In severe pyrexia - physical methods of reducing temperature like cold sponging, ventilation, removal of the clothing should be instituted.
 - Patients with severe pyrexia are often dehydrated - adequate fluid replacement should be done.

Specimens for investigating the cause of the fever should be taken. These include - Blood (parasites, hemogram and culture), urine for routine examination and culture, CSF for biochemical tests and microscopy, a chest X-ray should always be done if indicated.

(e) **Respiratory
Dyspnoea**

- Patient with severe dyspnoea should be kept in a propped-up position with adequate ventilation and should be rehydrated.
- Oxygen therapy should be instituted.
- In case of bronchospasm, Broncho dilators like Salbutamol, Theophylline, Terbutaline should be given with care.
- In all cases of severe respiratory embarrassment chances of secondary bacterial infection should be reduced by using appropriate chemotherapeutic agents like Amoxycillin, co-trimoxazole.
- Sometimes severe respiratory distress e.g. in pneumocystis Carinii pneumonia may necessitate addition of Cortico Steroid therapy as life saving measure.

(f) **Abnormal Mental
Condition**

- Fits or seizures - often manifestation of a local lesion in the brain and where required anti convulsant therapy like intravenous diazepam/phenytoin/phenobarbitone should be instituted immediately. All efforts should be made to exclude tuberculosis and toxoplasmosis which are treatable.
- Dementia - should be detected early and supportive measures instituted. These include - education of the immediate family members about the behaviour of the patient, exclusion of the patient from hazardous occupations and in severe cases restriction within the house.
- Psychosis - manifested by violent behaviour - should be immediately managed using psychotropic agents e.g. chlor promazine, haloperidol etc.
- Depression - should be treated as per psychiatric management.
- Unconsciousness - usual care for unconscious patients like, maintenance of nutrition, good hygiene, maintenance of airway, keeping the bed dry, to avoid bed sores should be instituted. In addition antibiotic therapy may be instituted to prevent hypostatic pneumonia.

Chest-physiotherapy is desirable.

Exercise 2.3

1. A forty year old man presents in a state of severe dyspnoea and gives a history of recent return from a country where HIV is highly prevalent. He lived there for years and had sex with many partners. A quick look at his oral cavity shows thick coatings of thrush. On suspicion of HIV infection, the patient is immediately referred to the referral hospital, fifty miles away for further diagnosis and management. While in the taxi the patient's condition worsens.

Questions

- (i) What mistake was made at the first hospital?
- (ii) How the patient could be managed by attending clinician?

2. One year old child is brought to the hospital with a history of loose stools for the past 3 days with fever of 40°C. The child is not eating well due to sore and white patches in the mouth

Further questioning reveals that mother has not been attending well baby clinics regularly and does not know the right foods to feed the child. The doctor makes a diagnosis of Marasmus and initiates the child on high protein diet and sends a consultation to the Nutritionist to educate the mother on proper feeding.

Questions

- (i) What other measures would you take in the care of this patient?
- (ii) What would be your line of management if the child suddenly develop convulsions? What is the possible cause?

3. A young woman was admitted to the medical emergency with severe diarrhoea, and mild abdominal pain for 3 days. Examination revealed white patches in the oral cavity, dehydration, rapid pulse, a blood pressure of 90/70 mm Hg and a loss of skin elasticity.

Questions

- (i) What will be your first line of management?
- (ii) What specific treatment can you give to this patient, even without any investigations?

MODULE - 2.4 (3 hours)

TOPIC: SPECIFIC TREATMENT AIMED AT DIFFERENT ETIOLOGICAL AGENTS

- Teaching goals** : The purpose of this session is to enable the participants to know the specific treatment for conditions occurring in HIV infections, diagnosed definitely or presumptively.
- Learning Objective** : At the end of the session the participants should demonstrate their understanding of the specific treatment for different conditions by:
- i) discussing the criterion which they will use to make a decision for giving specific treatment aimed at the following etiological agents.
 - ii) outlining the drugs their dosage, mode of administration and their side effects.
- Materials** : See Information Notes III-A, III-B, III-C, III-D
- Training Strategy** : The following teaching strategy should be used for specific treatment of conditions occurring in different systems of the body. The trainer should present the information on specific treatments as a hand out. The class should be divided into four groups and each given a task to discuss the criterion for giving specific treatment against one of the four groups of Etiological agents in Information Notes III A-D. The aim should be to elicit clinical decision making with regard to treatment against specific agents.
- Assessment Exercise** : See Exercises III A and III C.

MODULE 2.4

SPECIFIC TREATMENT

INFORMATION NOTE: 2.4A

SPECIFIC TREATMENT FOR RESPIRATORY CONDITIONS

Figure III shows an logarithmic approach to management of respiratory conditions.

- (a) **Tuberculosis :** Definitive diagnosis of tuberculosis is based on finding AFB in the sputum. Presumptive diagnosis can be made based on clinical symptoms, signs and a suggestive X-ray.

Treatment - the four drug regimen of Rifampicin -10 mg/kg/daily, INH - 5-10 mg/kg/daily (Max 300 mg), Pyrazinamide 25 mg/kg/daily and Ethambutol - 15 mg/kg/daily - for two months followed by a two drug regimen for 7 months excluding pyrazinamide. Other anti-tubercular drugs may be thought of after getting sensitivity report.

(Refer to Indian Tuberculosis Control Programme Guidelines).

N.B. : Thiacetazone should not be used in HIV infected patients because of a high rate of hypersensitivity reactions.

- (b) **Pneumo Cystis : Carinii**
Pneumonia Definitive diagnosis of Pncumo Cystis Carinii Pneumonia is based on the finding of cysts of PC in the induced sputum or in bronchoalveolar lavage.

A presumptive diagnosis can be made in presence of HIV condition by clinical symptomatology like dry cough, exertional dyspnoea and a suggestive chest X-ray showing bilateral interstitial infiltrates.

Treatment : Trimethoprim (TMP) 15 mg/kg daily plus Sulfamethoxazole (SMX)75 mg/kg for 3 days intravenous infusion through side tube of I.V. line taking a time of 60-90 minutes for a dosage.

When the patient improves oral co-trimoxazole is started in a dose of TMP 20 mg/kg + SMX 80 mg/kg for the rest of the days in total duration of 21 days.

Pentamidine Isothianate - 3-4mg/kg Intravenously daily with 5% dextrose - slowly shall be given for 7-14 days. Intra-muscular injection is contra indicated as it produces painful abscesses. Pentamidine may also cause hypoglycemia and hypotension, which should be monitored accordingly, if they occur.

Secondary prophylaxis

Dapsone 100 mg daily or Co-trimoxazole ds. 2 tablets per week or pentamidine isothionate nebulizer 60 mg inhalation once in three weeks or pyrim I.v pentamidine.

(c) **Bacterial** : A presumptive diagnosis is made by clinical **Pneumonia** symptomatology of fever, chest pain, cough with purulent sputum and signs of pneumonia and by suggestive chest x-rays with leukocytosis.

Treatment : 10,00000-20,00000 every 6 hourly Injection Benzyl Penicillin intravenously to start with and, depending on the sputum culture and sensitivity report, - appropriate antibiotics for 2 weeks.

(d) **Pulmonary Fungal Infections** : A definitive diagnosis of pulmonary fungal infection is made when the fungal organism (cryptococcus, Histoplasma etc.) is seen in the sputum. A Presumptive diagnosis can be made if a patient who has been receiving prolonged antibiotics or steroid therapy develops a chronic dry cough. Treatment should be given only after demonstration of fungus in the sputum.

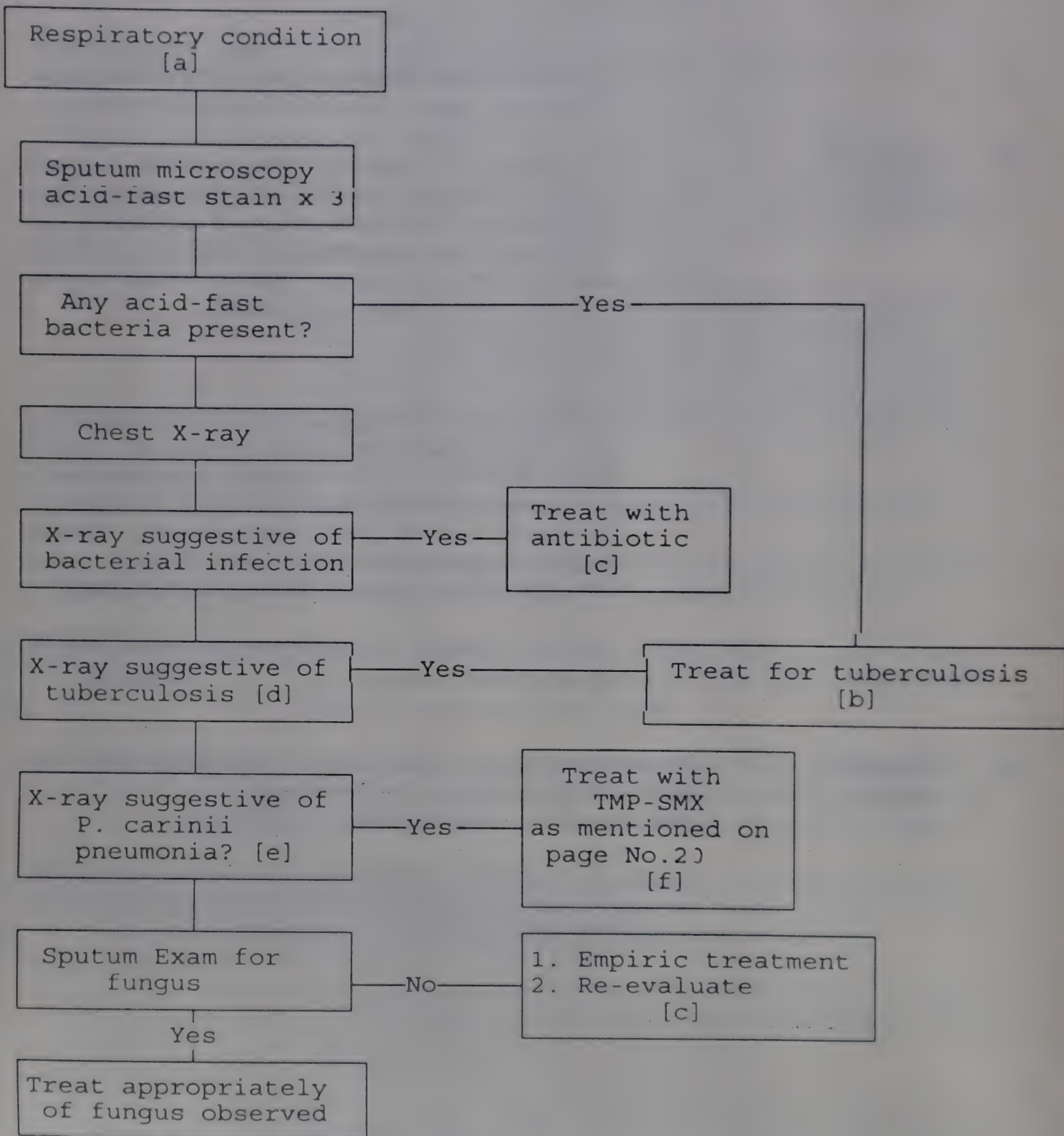
Treatment

- (i) Amphotericin B 0.5-0.7mg/kg of body weight Intravenously over 4-6 hours daily for 6 weeks if tolerated. Sodium chloride should not be used for giving I.v Amphotericin-B. 10 ml Sodium Bicarbonate should be used in every bottle of 5% dextrose used for giving Amphotericin-B. Sodium Bicarbonate reduces Amphotericin induced phlebitis. (Start with a low dose of .25 mg/kg and raise the dose slowly).
- (ii) Alternative treatment is with Fluconazole tablets 200-400 mg daily for 4-6 weeks.

(c) **Pulmonary Tumors** : Diagnosis by histological Examination of a lymphnode aspirate by FNAC or a biopsy specimen by bronchoscopy.
(Kaposi's Sarcoma microneoscopy or Lymphoma)

Decision to treat using chemotherapy or radiotherapy should be taken by the physician, the patient and the patient's family after weighing the advantages of therapy against the side effects.

RESPIRATORY CONDITIONS



MODULE 2.4

GASTRO INTESTINAL TRACT

INFORMATION NOTE : 2.4B

Figure IV, and Figure V show the algorithmic approach to management of oral thrush and chronic diarrhoea.

- (a) **Oral Thrush** : A definitive diagnosis can be made clinically based on the finding of whitish plaques on the oral mucosa which can be easily removed to reveal a bleeding surface. This diagnosis can be confirmed by microscopic examination of mouth scraping for pseudo hyphae and blastosphere of Candida.

Treatment

- (i) Oral application of 1% aqueous Gentian Violet daily for 7 days. If no improvement
- (ii) Hamycin suspension
- (iii) Clotrimazole lozenges
- (iv) Nystatin oral suspension or tablets (100,000.. I/U three times daily for 7 days.
- (v) Ketoconazole - 200mg twice daily for 14 days.
(provided liver function tests are normal)

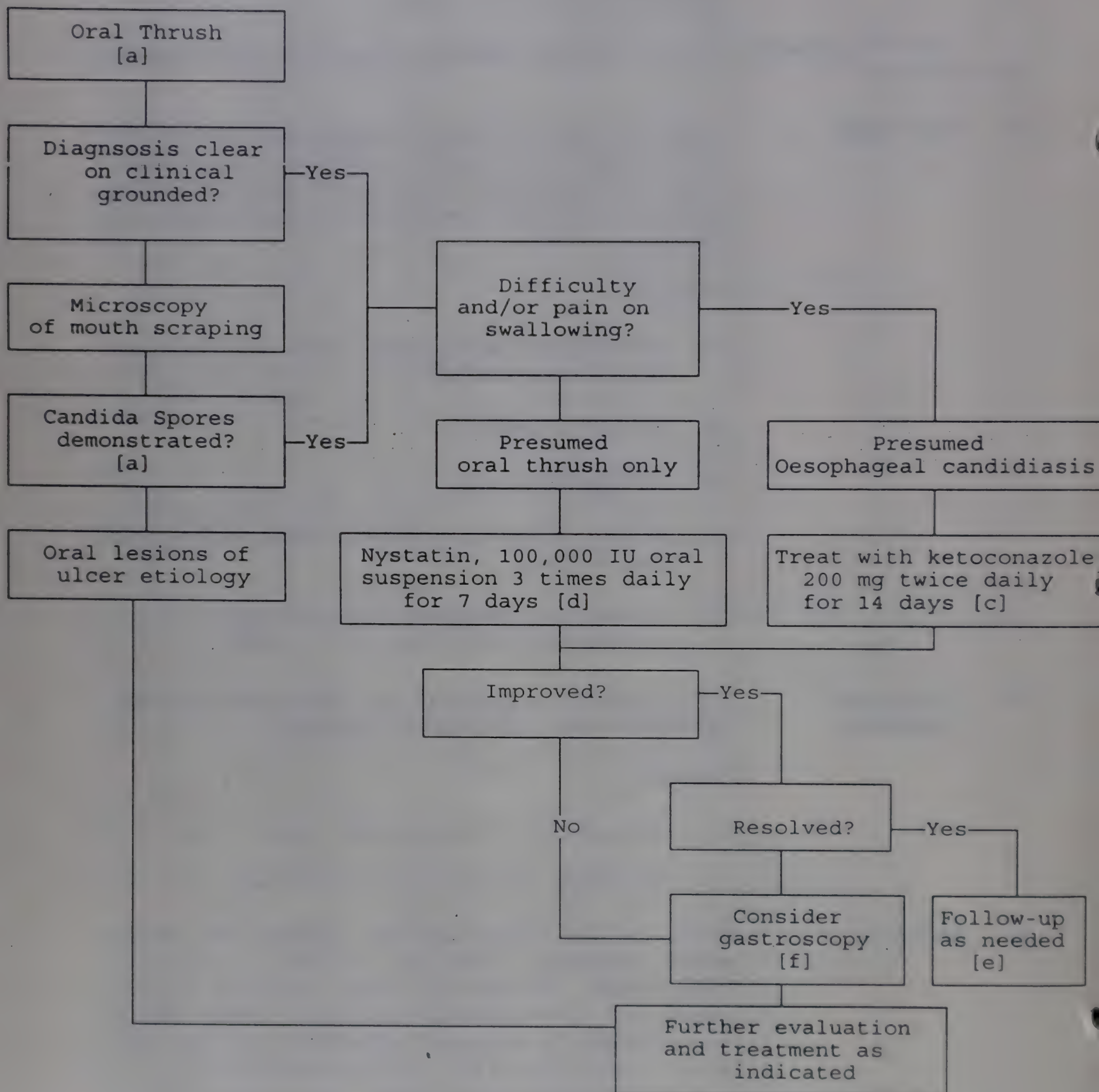
- (b) **Oesophageal Candidiasis** : This is suspected if a patient with oral thrush and/or pharyngeal extension complains of dysphagia or odynophagia.

Treatment

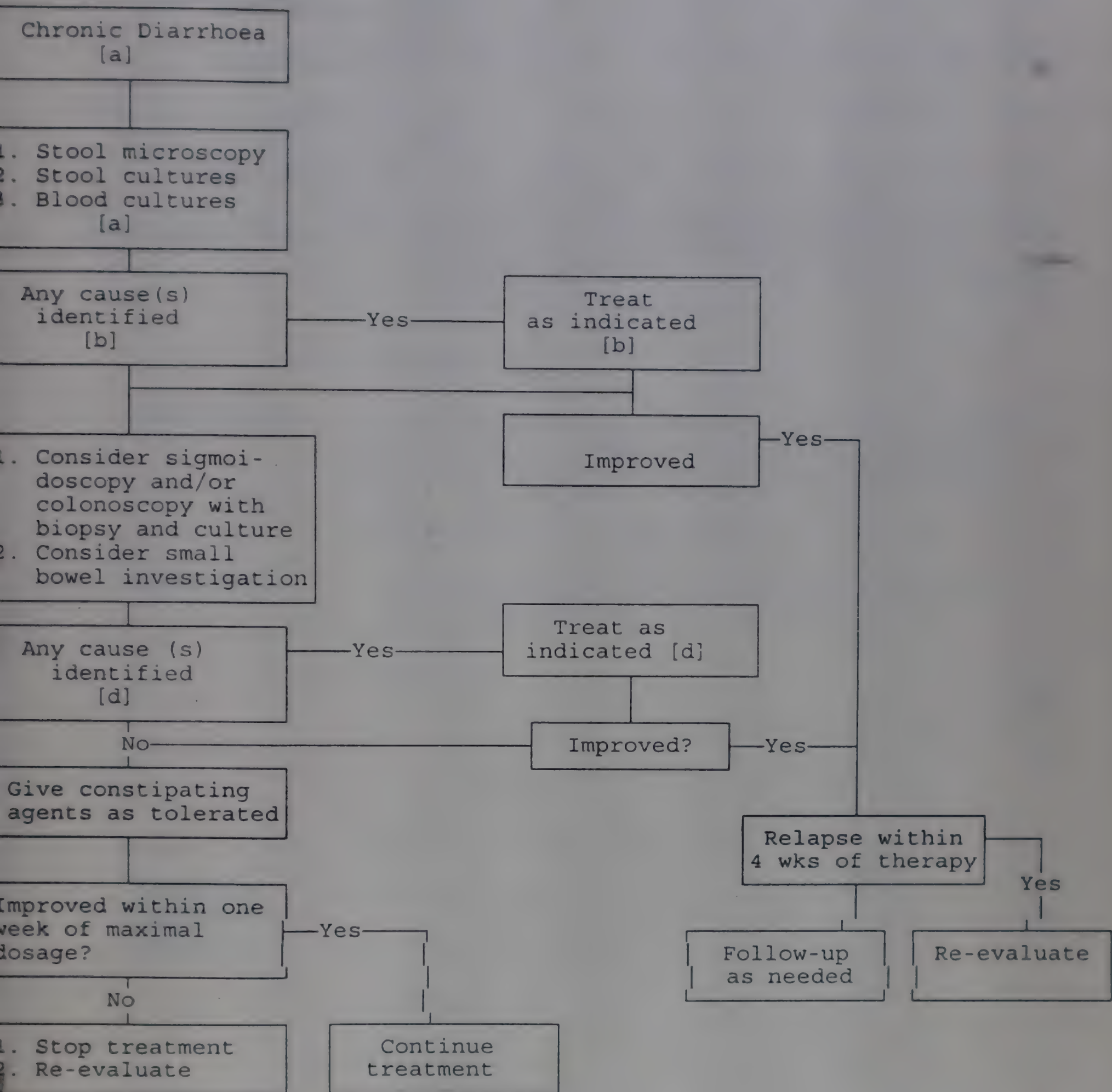
- (i) Ketoconazole - 200 mg twice daily orally for 5 days.
- (ii) Fluconazole - 100 mg daily orally for 2 weeks.

- (c) **Diarrhoea** : Specific causes of diarrhoea could be - Cryptosporidium, Giardia lamblia, Entamoeba, Salmonella, Shigella, Campylobacter, Strongyloidiasis, Mycobacterium Avium Intracellulare complex, Isospora Belli, Cytomegalovirus, Herpes virus. Specific etiology can be identified by microscopic examination of the stool, stool culture. In fifty percent of HIV related chronic diarrhoea the cause can not be determined, and the probable cause of this diarrhoea is thought to be HIV itself. (This may be HIV induced enteropathy).

ORAL THRUSH



CHRONIC DIARRHOEA



Treatment

- (i) Giardia and Amoeba _ Metronidazole - 400 mg three times daily for 7 days.
- (ii) Salmonella, Shigella and Isospora - Cotrimoxazole-2 twice daily for 7 days.
- (iii) Campylobacter is sensitive to erythromycin - 500 mg QID for 2 weeks.
- (iv) Strongyloidosis - Albendazole 200 mg single dose to be repeated after 3 weeks.
- (v) Mycobacterium Avium Intracellulare & Cryptosporidium - No specific treatment. Only symptomatic treatment. (Spiramycin may be tried)

INFORMATION NOTE : 2.4C
SKIN AND GENITAL SYSTEM

- (a) **Herpes Simplex :** A presumptive diagnosis of herpes simplex in HIV infection is made based on the finding of painful ulcerative blisters, (chronic but with a history of recurrence) especially in the anogenital area and on the lips.

Treatment

- (i) Acyclovir - 200 mg five times daily orally for 5 days.
(Effective if started within three days of onset)
- (ii) Care for the lesions (Topical antibiotic if super added bacterial infection present).
- (iii) Topical acyclovir

- (b) **Herpes Zoster :** A definitive diagnosis is made based on the finding of blisters spreading over a well demarcated dermatomal or multidermatomal area on the skin. Lesions may be generalized or relapsing in nature.

Treatment : Same as for Herpes Simplex.

- (c) **Genital Warts:** A presumptive diagnosis is made based on the finding of verruconos swelling on the skin (usually not painful, not itching).

Treatment

- (i) 25% podophyllin - applied on the tips of the warts.
- (ii) Cryotherapy with liquid Nitrogen if available.
- (iii) Surgical excision or electrocautery

- (d) **Extragenital:
Contagiosum
Molluscum** Pearly white papular eruptions with central umbilication

- (i) Chemical cautery after derroofing with
- (ii) Electro cautery
- (iii) Cryotherapy

- (e) **Fungal Infection:** A presumptive diagnosis of fungal infection is based on the finding of itchy, Scaly, dispigmented lesions with a typical active edge and healing centre. Vaginal discharge and vaginal itching are to be checked.

Treatment:

- (i) Clotrimazole ointment apply twice daily for 2 weeks.

(ii) Whitfield's ointment applied twice daily for 2 weeks.

(iii) Miconazole ointment applied twice daily for 2 weeks.

(iv) Griseofulvin or Ketoconazole to be given orally.

(f) **Syphilis** : A presumptive diagnosis of primary syphilis is based on the history of a painless genital ulcer and painless inguinal lymphadenopathy and a non itchy symmetrical papulosquamous skin rash extending into the palms and soles along with generalized lymphadenopathy. A positive VDRL test is helpful.

Secondary Syphilis is characterized by bilateral pleomorphic condyloma lata is to be seen over mucocutaneous junctions.

Treatment : Injection Benzathine Penicillin - 2.4 mega unit I/M once.

(g) **Bacterial Infection of the Skin** : A presumptive diagnosis of Bacterial infection of the skin (furunculosis Impetigo, pyoderma, folliculitis) is made on the finding of a painful, inflamed swollen and suppurative lesions on the skin or under the skin.

Treatment

(i) Systemic anti microbial therapy (Penicillin, tetracycline) for two weeks.

In severe cases, or on culture and sensitivity - appropriate therapy can be given.

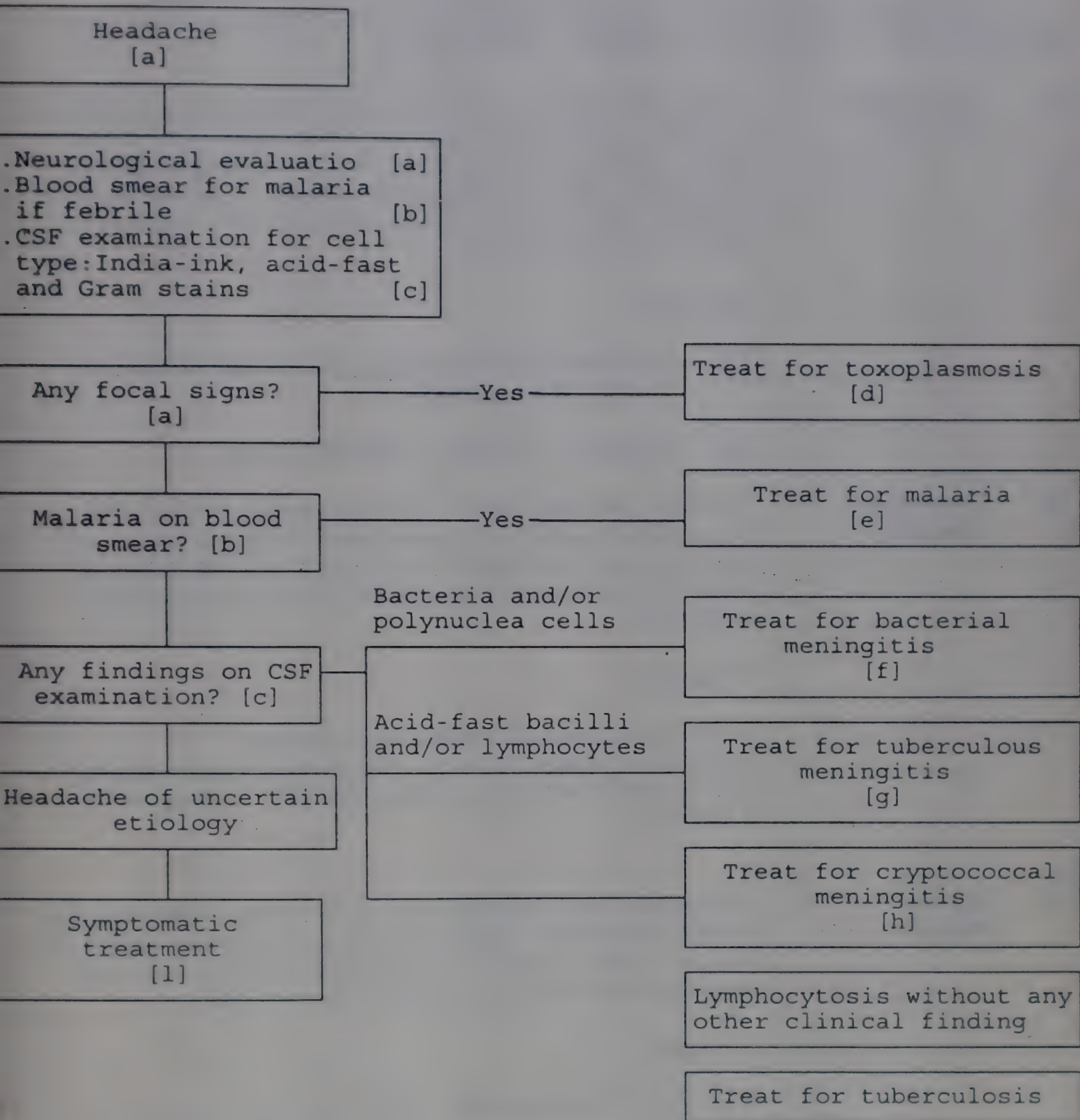
(h) **Chancroid** Multiple painful shallow ulcers over genitalia with or without inguinal bubo.

Treatment: Co-trimoxazole (80 mg TMP+400 SMX) 3 tablets twice daily for 7 days. Ciprofloxacin 500 mg - once (single dose).

(i) **Gonorrhoea** Thick creamy yellow genital discharge with burning sensation during micturition (diagnosed by gm stain and culture of the genital discharge).

Treatment : Co-trimoxazole : 10 tablets for successive 3 days. Ciprofloxacin 500 mg-(Single dose treatment)

HEADACHE



INFORMATION NOTE : 2.4D

CENTRAL NERVOUS SYSTEM

Figure VI shows the logarithmic approach to management of CANS conditions that cause headache.

- (A) **Cryptococcal Meningitis** : A definitive diagnosis is made based on the findings of the organisms in the CSF. A presumptive diagnosis is made based on the clinical finding of fever, neck stiffness, headache, +ve Kernig's sign and serological finding of cryptococcal antigen in the serum. A definitive diagnosis is done by demonstration of the organism in C.S.F by india-ink preparation

Treatment

- (i) Amphotrecin B 0.5-0.7 mg/kg daily I/V over 4-6 hours for 6 weeks. If not tolerated
- (ii) Fluconazole - 200-400 mg daily for 12 weeks.

- (b) **Tuberculous Meningitis** : A definitive diagnosis is made based on the finding of AFB in CSF. Presumptive diagnosis can be made based on clinical features of fever, headache, neck rigidity, +ve Kernig's sign and finding of moderately low sugar in CSF increased protein and lymphocytosis in the CSF.

Treatment

Treatment with standard Antituberculosis regimen.
(as mentioned in page 22), use of corticosteroid, if indicated with caution, Pyrazinamide to be continued with INH 2 Rifampicin for 9 months.

- (c) **Pyogenic Meningitis** : A definitive diagnosis is made based on the finding of bacteria in the CSF presumptive diagnosis can be made based on clinical finding of fever, headache, neck rigidity, Kernig's sign and leucocytosis, very low sugar and high protein in C.S.F.

Treatment

High doses of Benzyl penicillin - 12-24 mega units daily in divided doses every 4 hours (if no response within 48 hours, change according to culture sensitivity report of C.S.F.)

- (d) **Toxoplasmosis:** A presumptive diagnosis is made based on the finding of radiological and clinical evidence of a focal brain lesions.

Treatment

Pyrimethamine 75-100 mg + Sulfadiazine 6-8 mg daily in four doses for 6-8 weeks. If the response is good, lifelong suppressive therapy is needed. Pyrimethamine 25 mg daily + Sulfadiazine 2-4 gm daily.

Exercise 2.1

1. A young woman aged 25 years, reported to the Surgical Department with a swelling in the right axilla which on examination was found to be a non-tender non-matted lymph node enlargement. The gland was biopsied and histology showed a non-specific hyperplasia. However, the biopsy wound did not heal and despite daily dressing, a discharging sinus formed.

The case was referred to a physician who on questioning, revealed a history of blood transfusion for which no proper screening of the blood was done. On examination, the physician identified similar enlarged lymph nodes in other extra-inguinal sites, and the spleen was palpable 1½ cm below the costal margin, and it had a firm consistency.

Questions

- (i) What do you think is a probable diagnosis of the case?
- (ii) What laboratory tests would you like to do in this case and why?
- (iii) Why a non-healing sinus was formed?

Exercise 2.2

A 25 years old man with a life style history of multisexual partners reports to the hospital with severe burning pain and itching in the upper part of the right side of his face. The attendant physician also elicits a history of a similar episode 6 months ago on the patient's trunk. Examination reveals a scar which looks like a burn mark on the trunk. The physician immediately initiates treatment.

Questions

- (i) What is the diagnosis for this condition?
- (ii) What treatment did the physician initiate?
- (iii) What are the potential complications of this condition and how can they be prevented?

Exercise 2.3

1. An HIV infected patient was diagnosed and treated for pneumocystis Carinii Pneumonia. He was reviewed and found to be improving on the treatment and was sent home on maintenance therapy. Two days later, the patient was returned to the hospital with severe itching and skin excoriation and bleeding blisters on the lips.

Questions

- (i) What is the likely cause of the new condition?
 - (ii) What would be your line of management?
2. A 21 years old man with HIV infection and herpes zoster is discharged from the hospital. He will now return to his family, wife and two children in a slum area. Which advice do you give to this man, who is otherwise healthy?

Exercise 2.4

A 37 years old woman is admitted because of severe headache, that has started one month ago. Initially she had a short episode of fever, but no neurological signs. She has been to be local doctor who presented pain medication. However the symptoms less become worse. While taking a history the women report to a positive HIV test, done three years ago. On physical examination she has some meningismus but no other physical finding.

Questions

1. What is the likely diagnosis?
2. How do you proceed with this patient?

MODULE - 2.5

TOPIC : EMPIRICAL TREATMENT

- Teaching goals** : To enable the participants to learn treatment modalities that can be given to AIDS patients, when no definitive etiological diagnosis can be made, with the aim of covering the most prevalent etiologic agents.
- Learning objective** : At the end of the session the participants should be able to make a selection of treatments or combination of treatments aimed at treating the likely etiological causes of common HIV/AIDS conditions, for example:
- (i) Respiratory conditions
 - (ii) Gastro Intestinal condition with symptoms like oral thrush dysphagia, diarrhoea and others.
- Materials** : Information Note IV and Extracts from WHO Guidelines on Clinical Management.
- Teaching Strategy** : The trainer will give a short presentation, using slides and overheads, of the empirical treatment of AIDS related conditions as in Information Note IV and guide the participants in a discussion of the reasons for choosing these Empirical treatments.
- Assessment Exercise** : See Exercise 2.5

INFORMATION NOTE : 2.5

EMPIRICAL TREATMENT

Introduction:

By Empirical treatment we mean a treatment given based on local epidemiological causes of a condition without a definitive diagnosis.

It is not always possible to identify the causative agents. The choice of treatment depends on findings of epidemiological studies of the most prevalent causes of the condition. In some instances, treatment may be combined in order to cover the most common and treatable etiological causes.

(a) Fever :

Empirical treatment in should cover Malaria and if no response is observed, bacterial cause should be considered and treated with broad spectrum antibiotics and if no response is observed, a trial of antituberculous therapy for 6 weeks should be given.

Figure VII shows the management of Fever and the role of Empiric treatment.

(b) Diarrhoea:

Empirical treatment should cover bacterial causes (Cotrimoxazole), protozoal, viral and iatrogenic (withdrawal drugs) causes (metronidazole), if no response anti helminthic treatment (Albendazole) should be given. The likely cause of bloody diarrhoea not responding to the above regimen, when the patient has fever and leucocytes or pus cells in the stool is *Campylobacteria* spp. which can be treated using Erythromycin 500 mg four times daily.

(c) Respiratory conditions :

Empirical treatment should cover pyogenic bacteria (amoxycillin for one week), if no response cotrimoxazole.

If after such treatment the patient's condition worsens by clinical and radiological evidence this may warrant trial of anti tuberculous therapy for six weeks.

(c) Headache and pain :

All efforts should be made to investigate the causes of headache or pain elsewhere. If no cause and no associated finding like fever etc., symptomatic therapy should be instituted.

Exercise 2.5

1. A young man, HIV +ve complains of cough with scanty expectoration and has lost considerable weight over the past one month. He has received a course of ampicillin for one week followed by a course of cotrimoxazole for 2 weeks with no improvement. Sputum examination done 3 times showed no abnormality. Chest X-ray done on two occasions showed some noduro-interstitial shadow. Mantoux test was negative.

Questions

(i) What is the probable diagnosis?

(ii) How do you manage this case?

2. A man aged 26 years presents with a history of loss of weight fever, unproductive and swelling in the mouth for the last 2 months.

Examination revealed a wasted, febrile man with a purplish red swelling on the hard palate. He had a cervical lymphadenopathy chest x-ray revealed bilateral plural effusion and a left middle zone infiltrates.

Questions

(i) What signs does this patient presents that will make you think of AID?

(ii) What is the likely cause of the disease?

- pleural effusion
- Cervical lymphadenopathy

(iii) What further investigation will you like to do?

MODULE - 2.6 (1 hour)

TOPIC : PATIENT FOLLOW UP PROTOCOL

Teaching goal	:	Aim of this session is to enable the participants to develop definite plans of follow up of patients after the initial management.
Learning Objectives	:	<p>At the end of the session, the participants should be able to outline the plans of follow up of patients including :</p> <ul style="list-style-type: none">(i) monitoring of response to their treatment and side effects, if any.(ii) changing of treatment as and when necessary.(iii) making decisions regarding palliative care when the need develops.(iv) educating patient's family for home-care.
Materials	:	Information Note 2.6
Teaching Strategy	:	The trainer will give a presentation of the goals of follow up and discuss the chronic and worsening nature of the disease and the need to involve, the patient and the family in discussing the plan of treatment. The participants should be given a chance to demonstrate their approach to making plans for patients follow up.
Assessment Exercise	:	Exercise 2.6

INFORMATION NOTE : 2.6

(a) FOLLOW UP PROTOCOL

Reference should be made to the algorithms of WHO Clinical Management/Guidelines (Figures III to VII). They show the logical steps to be taken after the patient has received the initial treatment (specific and empirical treatment). These charts also contain decision boxes which give guidance for further management.

They represent the clinical follow up protocol for eight major conditions related to HIV infection.

(b) HOME BASED CARE

After management with the hospital the patient and the family should be given education about

- the common condition likely to affect the patient
- the immediate management of these conditions
- the likely side effects of the medicine given to the patient.
- counselling and educating family members for biosafety.
- reporting to the caring physician or hospital at the earliest when any problem appears in future.

In particular, the remedies for relief of the following symptoms should be given :

- | | | | |
|-------|-----------------------|---|---|
| (i) | Fever | - | Aspirin, tepid sponging |
| (ii) | Pain | - | Aspirin, Paracetamol |
| (iii) | Cough | - | Codeine linctus or cough mixture |
| (iv) | Vomiting & Diarrhoea- | | Oral rehydration /metoclopramide/domperidone |
| (v) | Sore and wounds | | |
| | on the skin | - | Washing with warm water and keeping dry. |
| | | - | Application of gentian violet or betadine ointment. |

(c) TERMINAL CARE

Care of terminally ill patient is best done at home.

In terminally ill patient, physician should embark on symptomatic relief.

- (i) Emotional support for the patient and the family involving frank discussions of the prognosis and of any decisions for further treatment.
- (ii) Involving of spiritual care.
- (iii) Nursing care to avoid wetting and soiling of the bed and undue exposure and untidiness of the patient.
- (iv) Adequate nutritional support and rehydration.

- (v) Symptomatic relief of disturbing symptoms(e.g. headache), that keep the patient awake and lesions that affect nutrition (e.g. severe oral thrush).

Disposal of the Deadbody

- Cremation of the dead body is the ideal method of disposal. The relatives of the dead should be counselled accordingly.
- If burial is insisted upon due to social and religious beliefs, the dead body should be wrapped first in the cloth sheet soaked in bleaching power solution and then a locally available waterproof sheet (plastic/polythene) should be used to cover the entire body over the cloth.
- The dead body should be disposed of at the earliest without any delay.
- Unwrapping and direct handling of the dead body should not be allowed even for rituals.
- Mutilations during cremation as practiced in certain parts of the country are to be avoided.

Handling and disposal of blood/urine/stool/vomits/body secretions by family members

- Plenty of household plastic bags/polythene bags/tissue paper to be kept ready at bedside.
- Relatives having obvious cuts on the hand should avoid handling of body secretions.
- After handling body secretions, soap should be used liberally to wash hand.
- Soiled linen and clothes should be soaked in bleach solution for $1\frac{1}{2}$ hour and should be washed in usual way after that.
- Blood should be soaked in tissue paper or blotting paper and or cotton and then the paper or cotton should be burnt.
- The area of blood contamination should be moped with bleach solution.
- Vomits/stool/urine should be thrown away down the gutter.
- Container for keeping vomits, urine and stool should be cleaned with bleach solution.

Exercise 2.6

1. A lady was admitted in a hospital with a history of wasting, diarrhoea and dehydration. Stool microscopy and culture revealed no abnormality. Sigmoidoscopy showed a non-specific inflammation. HIV test was positive.

Question

(i) What is your management and follow-up protocol for this patient?

2. A young mother who is breastfeeding her baby consults a doctor because her husband has come down with AIDS. On subsequent examination, both the mother and her 10 month old child are found to be HIV positive. Their mother would like to know if she should continue breastfeeding.

Questions

(i) What additional information is needed?

(ii) What advise you would give to the mother?

**WHO recommendations for HIV testing strategies
according to test objectives and prevalence
of infection in the population**

Objective of testing	Prevalence of infection	Testing Strategy*
Transfusion/donation safety	All prevalences	I
Surveillance	>10%	I
	≤10%	II
Clinical signs/ symptoms of HIV infection/AIDS	All prevalences	II
Diagnosis	>10%	II
Asymptomatic	≤10%	III

- * Strategy I : All samples are tested with one ELISA or rapid/simple (hereafter referred to as test).
- Strategy II : All samples first tested with one test. Any reactive samples are subjected to second test based on a different principle and/or different antigen preparation.
- Strategy III : All samples are first tested with one test. Any reactive samples are tested with a different test. Samples found reactive by the second test are subjected to a third and different test.

1987 REVISION OF CDC/WHO CASE DEFINITION FOR AIDS SURVEILLANCE PURPOSES

For national reporting, a case of AIDS is defined as an illness characterized by one or more of the following "indicator" diseases, depending on the status of laboratory evidence of HIV infection, as shown below.

I. Without laboratory evidence regarding HIV infection

If laboratory tests on HIV were not performed or gave inconclusive results (see Appendix I) and the patient had no other cause of immunodeficiency listed in Section I.A below, then any disease listed in Section I.B indicates AIDS if it was diagnosed by a definitive method (see Appendix II).

A. Causes of immunodeficiency that disqualify diseases as indicators of AIDS in the absence of laboratory evidence for HIV infection.

1. High dose or long term systemic, corticosteroid therapy or other immunosuppressive/cytotoxic therapy for ≤ 3 months before the onset of the indicator disease.
2. Any of the following diseases diagnosed ≤ 3 months after diagnosis of the indicator diseases Hodgkin's disease, non-Hodgkin's lymphoma (other than primary brain lymphoma), lymphocytic leukaemia, multiple myeloma, any other cancer of lympheticular or histiocytic tissue, or angioimmunoblastic lymphadenopathy.
3. A genetic, or congenital, immunodeficiency syndrome, or an acquired immunodeficiency syndrome atypical of HIV infection, such as one involving hypogammaglobulinaemia.

B. Indicator diseases diagnosed definitively (see (Appendix II).

1. Candidiasis of the oesophagus, trachea, bronchi or lungs.
2. Cryptococcosis, extrapulmonary.
3. Cryptosporidiosis with diarrhoea persisting month.
4. Cytomegalovirus disease of an organ other than liver, spleen, or lymph nodes in a patient ≥ 1 month of age.
5. Herpes simplex virus infection causing a mucocutaneous ulcer that persists ≥ 1 month; or bronchitis, pneumonitis, or oesophagitis for any duration affecting a patient > 1 month of age.
6. Kaposi sarcoma affecting a patient < 60 years of age.
7. Lymphoma of the brain (primary) affecting a patient < 60 years of age.

8. Lymphoid interstitial pneumonia and/or pulmonary lymphoid hyperplasia (LIP/PLH complex) affecting a child < 13 years of age.
9. Mycobacterium avium complex or M. kansasii disease, disseminated (at a site other than or in addition to lungs, skin, or cervical or hilar lymph nodes).
10. Pneumocystis carinii pneumonia.
11. Progressive multifocal leukoencephalopathy.
12. Toxoplasmosis of the brain affecting a patient >1 month of age.

II. With laboratory evidence for HIV infection

Regardless of the presence of other causes of immunodeficiency (I.A.), in the presence of laboratory evidence of HIV infection (see Appendix I), any disease listed above (I.B.) or below (II.A or II.B) indicates a diagnosis of AIDS.

A. Indicator diseases diagnosed definitively (see Appendix II)

1. Bacterial infections, multiple or recurrent (any combination of at least 2 infections within a 2-year period) of the following types affecting a child < 13 years of age:

Septicaemia, pneumonia, meningitis, bone or joint infection, or abscess of an internal organ or body cavity (excluding otitis media or superficial skin or mucosal abscesses), caused by Haemophilus, Streptococcus (including pneumococcus), or other pyogenic bacteria.
2. Coccidioidomycosis, disseminated (at a site other than or in addition to lungs or cervical or hilar lymph nodes).
3. HIV encephalopathy (also called "HIV dementia", "AIDS dementia," or "subacute encephalitis due to HIV") (see Appendix II for description).
4. Histoplasmosis, disseminated (at a site other than or in addition to lungs or cervical or hilar lymph nodes).
5. Isosporiasis with diarrhoea persisting > 1 month.
6. Kaposi's sarcoma at any age.
7. Lymphoma of the brain (primary) at any age.
8. Other non-Hodgkin's lymphoma of B-cell or unknown immunological phenotype and the following histological types:
 - a. small noncleaved lymphoma (either Burkitt or non-Burkitt type);
 - b. immunoblastic sarcoma (equivalent to any of the following, although not necessarily all in combination: immunoblastic lymphoma, large-cell lymphoma, diffuse histiocytic lymphoma, diffuse undifferentiated lymphoma, or high-grade lymphoma).

Note: Lymphomas are not included here if they are of T-cell immunological phenotype or their histological type is not described or is described as "lymphocytic", "lymphoblastic," "small cleaved", or "plasmacytoid lymphocytic".

9. Any mycobacterial disease caused by mycobacteria other than *M.tuberculosis*, disseminated (at a site other than or in addition to lungs, skin, or cervical or hilar lymph nodes).
10. Disease caused by *M.tuberculosis*, extrapulmonary (involving at least 1 site outside the lungs, regard less of whether there is concurrent pulmonary involvement).
11. *Salmonella* (nontyphoid) septicaemia, recurrent.
12. HIV wasting syndrome (emaciation, "slim disease") (see Appendix II for description).

B. Indicator diseases diagnosed presumptively (by a method other than those in Appendix II)

Note: Given the seriousness of diseases indicative of AIDS, it is generally important to diagnose definitively, especially when therapy that would be used may have serious side effects, or when definitive diagnosis is needed for eligibility for antiretroviral therapy. Nonetheless, in some situations, a patient's condition will not permit the performance of definitive tests. In other situations, accepted clinical practice may be to diagnose presumptively based on the presence of characteristic clinical and laboratory abnormalities. Guidelines for presumptive diagnoses are suggested in Appendix III.

1. Candidiasis of the oesophagus.
2. Cytomegalovirus retinitis with loss of vision.
3. Kaposi's sarcoma.
4. Lymphoid interstitial pneumonia and/or pulmonary lymphoid hyperplasia (LIP/PLH complex) affecting a child < 13 years of age.
5. Mycobacterial disease (acid-fast bacilli with species not identified by culture), disseminated (involving at least 1 site other than or in addition to lungs, skin or cervical or hilar lymph nodes).
6. *Pneumocystis carinii* pneumonia.
7. Toxoplasmosis of the brain affecting a patient > 1 month of age.

III. With laboratory evidence against HIV infection

With laboratory test results negative for HIV infection (see Appendix I), a diagnosis of AIDS for surveillance purposes is ruled out unless:

- A. all the other causes of immunodeficiency listed above in Section I.A are excluded; AND
- B. the patient has had either:

- Endoscopy (for oesophageal candidiasis, herpes simplex infection, Kaposi's Sarcoma)
- Sigmoidoscopy - for anal herpes, Kaposi's Sarcoma, non-specific colitis.

(iii) **Central Nervous System:**

(ALL INVESTIGATIONS SHOULD BE RELEVANT AND DIRECTIONAL, BATTERY OR INVESTIGATIONS SHOULD NEVER BE ROUTINELY EMPLOYED)

- CSF Examination for meningitis (Bacterial, Tuberculosis, Cryptococcal and Aseptic). Figure 1 shows the use of CSF examination in diagnosis of CNS conditions manifesting as headache.
- Serology for Toxoplasmosis
- CSF for VDRL test
- Computerized Tomography Scan (CAT Scan)
- for any brain mass or lesion like toxoplasma, tuberculoma, lymphoma.
- AIDS dementia, signs of premature atrophy of the brain

Figure - 1

Value of CSF examination in the patient with symptomatic HIV-infection and headache

Etiology	Microscopy	Culture	Cell count	Serology	Biochemistry
Pyogenic bacteria	+	+	+	-	-
Cryptococcus neoformans	+	+	-	+	-
Mycobacterium tuberculosis	+	+	-	-	+/-
Treponema pallidum	+/-	-	+	+	+

Key + useful; - not useful; +/- may be useful

(iv) **Genito Urinary System**

- Blood test - VDRL
- Genital Smear - for gram staining (gonococci, candida, H.Ducreyi, Trichomonas)

- Culture for gonococci and hemophilus ducreyi
- Tissue impression smear for donovanosis

(v) **Generalized lymphadenopathy**

- Figure II demonstrates the use of investigations in diagnosis of the Etiology of lymphadenopathy
- Fine needle aspiration biopsy and cytology.

Figure - 2

Value of investigations used in the patient with symptomatic HIV infection and lymphadenopathy:

Etiology	Chest X-ray	Serology	Lymph-node culture	Microscopy
Tuberculosis	+	-	+	+
Syphilis	-	+	-	+
Fungal infection	+/-	+/-	+/-	+
Kaposi sarcoma	-	-	-	+
Lymphoma	+	-	-	+

Exercise 2.1

1. A young lady comes to the medical emergency of a local hospital complaining of cough with scanty expectoration, rapid breathing. On examination she looked ill, respiration rate was about 35/minute, she was mildly cyanosed. Her chest x-ray was reported to show bilateral opacities and blood report showed raised erythrocyte sedimentation rate. She was put on anti tuberculous regimen. Next day she reported to the consultant that her breathing got worse whenever she tried to walk to the toilet. The consultant reviewed the x-ray and said it was very typical of a certain condition and immediately made a decision to test the sputum and to test for HIV.

Questions

- (i) What do you think the consultant observed in the x-ray?
- (ii) What HIV related condition is this typical of?

2. A 37 years old women is admitted because of severe headache, that has started one month ago. Initially she had a short episode of fever, but no neurological signs. She has been to a local doctor who prescribed pain medication. However, the symptoms less become worse. While taking a history the woman reported to a positive HIV test, done 3 years ago. On physical examination she has some meningismus but no other physical finding.

Questions

- (i) What is the likely diagnosis?
- (ii) How do you proceed with this patient?

3. An HIV infected patient with fever and productive cough for 2 months. He had also lost more than 10% of his original body weight. His sputum was positive for AFB.

Questions

- 1. Is the information provided enough for this case to be diagnosed as AIDS?
- 2. Give reasons for your answer?

MODULE - 2.2

TOPIC - ASSESSMENT OF GENERAL CONDITION

Teaching goal	:	To enable the participants to identify clinical status of patients that may require immediate attention on presentation irrespective of HIV status.
Learning Objective	:	<p>On completion of this session, the participants should demonstrate an understanding of the role of making a quick assessment of the general condition of a patient by outlining the importance of assessing -</p> <ul style="list-style-type: none">(i) mental state(i) state of hydration(iii) state of respiration(iv) level of pyrexia and(v) state of nutrition
Material	:	See Information Note 2.2
Training Strategy	:	The trainer should present the information in 2.2, using overhead transparency and guide the participants in discussing the assessment of each of the clinical status. The group should also discuss whether the approach to clinical assessment will differ according to the primary etiology of the condition.
Assessment Exercises	:	See Exercise 2.2

MODULE 2: MANAGEMENT OF HIV/AIDS

INFORMATION NOTE: 2.2

ASSESSMENT OF GENERAL CONDITION

As part of the general management of a patient, a necessary first step is to assess the general condition of the patient. Physicians should understand that a definitive diagnosis (especially HIV testing), is not a prerequisite to immediate care where indicated. In particular, the following conditions should be assessed, and immediate care given wherever indicated before any definitive diagnosis or management is done.

2. Assessment of dehydration

Clinical Features	D e h y d r a t i o n	
	Moderate	Severe
General appearance/ Condition	Restless, irritable	Altered sensorium; apprehensive, cold, sweaty, cyanotic extremities
Pulse	Rapid	Rapid, feeble, sometimes impalpable hypotension
Blood pressure	Normal	
Respiration	Deep, may be rapid	Deep and rapid
Skin elasticity	Pinch retracts slowly	Pinch retracts very slowly (> 2 Sec.)
Eyes	Sunken	Deeply sunken
Mucous membranes	Dry	Very dry
Urine flow	reduced amount and dark	None passed for 6 or more hours, empty bladder

3. Assessment of Respiratory Distress

Clinical features	Respiratory Distress	
	Moderate	Severe
Dyspnoea	On minimal exertion	At rest
Pulse	Normal	Rapid
Ventilatory effort	Flairy Nose, Using accessory muscles	Intercostal drawing
Signs of Hypoxemia	Mild cyanosis	Deep Cyanosis
Respiratory rate	>normal & < 35/min.	35/min.

4. **Assessment of Pyrexia (axillary)**

- Low grade fever $< 40^{\circ}\text{C}$ $> 38^{\circ}\text{C}$ with or without delirium
- High grade fever 40°C or more with or without delirium

5. **Assessment of Mental State**

Clinical Features	Mental State	
	Mild impairment	Severe impairment
Personality state	<ul style="list-style-type: none">- Loss of concentration- Mild confusion- Mild cognitive impairment	<ul style="list-style-type: none">- Dementia- Severe psychosis
Level of consciousness	<ul style="list-style-type: none">- Drowsy/semiconscious- Responds to painful stimuli	<ul style="list-style-type: none">- Unconscious- Does not respond to painful stimuli

6. **Assessment of nutritional status:**

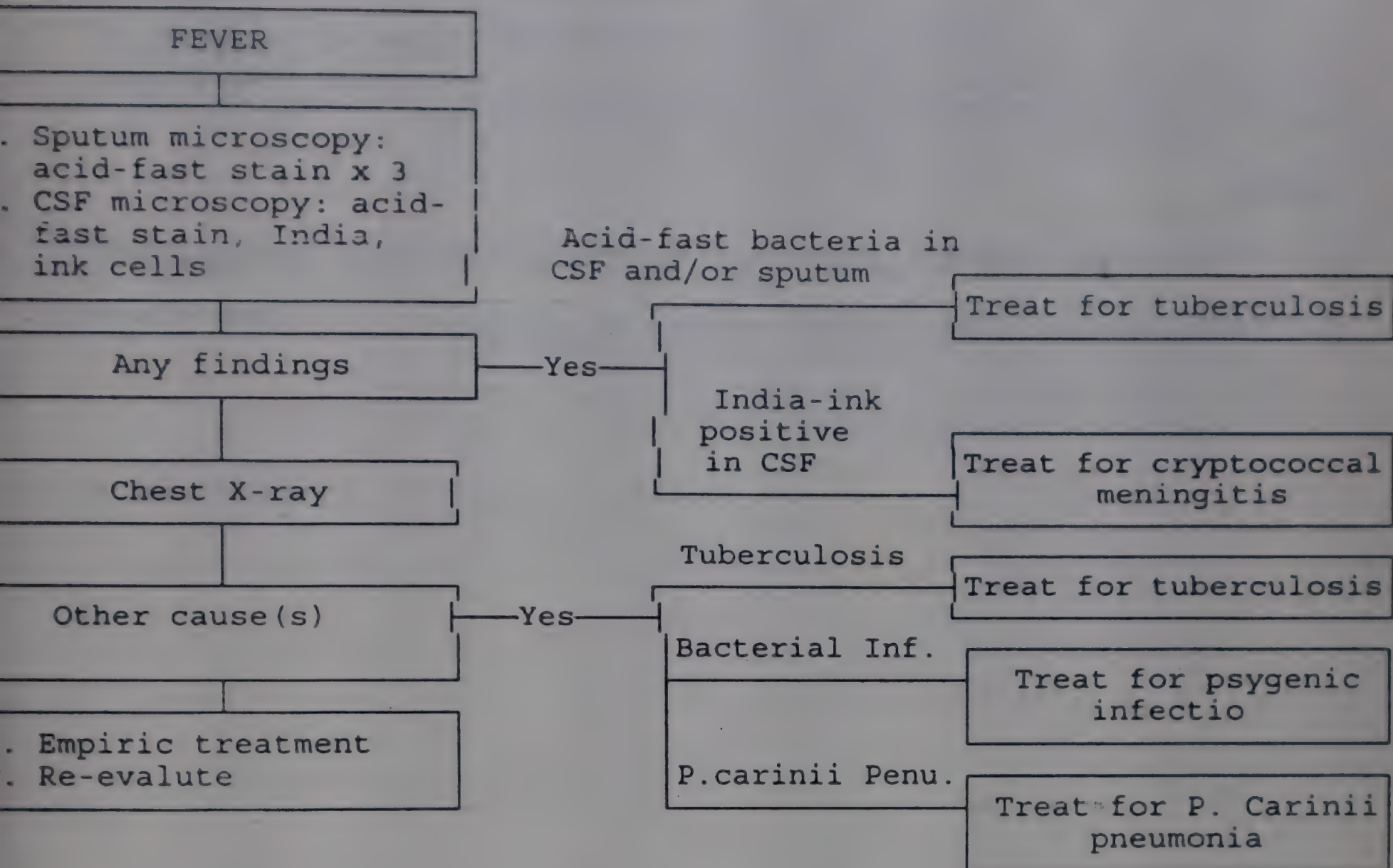
(Ideally to be done by body mass index) Beside methods should include the

- measurement of weight for height
- wasting of muscles and body fat (100k at the ghiteal region, Supraclavicular region, mid-arm circumference)

Classification may be done as

- (i) mild - underweight and loss of subcutaneous fat
- (ii) Severe-extreme wasting and cachexia

FEVER



Exercise 2.2

1. A 21 years old man with HIV infection and herpes zoster is discharged from the hospital. He will now return to his family, wife and two children in a slum area. Which advice do you give to this man, who is otherwise healthy?
2. A 35 years old middle class man comes to the out patients department complaining of persistent headache for the past 3 months. He also gives a history of loss of weight during the same period. He has no other symptoms and is worried about his weight loss.

Questions:

- (i) What are the possible differential diagnosis for the cause of the headache and weight loss?
- (ii) What investigations will you perform to confirm the diagnosis?

MODULE 2.3 (45 min.)

SYMPTOMATIC MANAGEMENT

- Teaching goals** : The purpose of this session is to sensitize the participants of the general management of an HIV infected patient.
- Learning Objective** : At the end of the session, the participants should be able to outline the general management of an HIV infected patient symptom by symptom regardless of the etiological cause.
- Material** : See Information Note 2.3
- Training Strategy** : In a Brain storm session, using the Flip Chart and a marker pen, the trainer records the participants answers the views regarding types of symptoms and their management that commonly occurs in HIV infection. The trainer should clarify issues using information in 2.3
- Assessment Exercise** : See Exercise II B.

INFORMATION NOTE: 2.3

SYMPTOMATIC MANAGEMENT

- (a) **Dehydration** : Give Oral rehydration solution, adequately if the patient is not suffering from mild dehydration and he is not vomiting frequently.
- If frequent vomit persists, parenteral hydration with intravenous fluids like normal saline, followed by 5% glucose in the ratio of 2:1 and potassium should be given in the form of Ringer's Lactate.
 - Anti Emetics like metaclopramide or domperidone and as soon as the patient can take by mouth, oral rehydration solution to be started.
- (b) **Diarrhoea** :
- Drugs like loperamide, opiates should be used with caution, especially in cases of bloody diarrhoea for fear of toxic mega colon and should not be used in the very young and elderly. In all cases institution of this therapy should only be considered if oral rehydration and antibiotic therapy have not helped.
 - Correction of dehydration if any.
 - Nutritional support, Patients with chronic diarrhoea should receive small frequent meals low in: residue, lactose, fats.
 - Paracetamol, aspirin may be given as required (2-3 times/day)
- (c) **Pyrexia** : In India Malaria is endemic. Any febrile patient should immediately be tested for Malarial parasites and if positive, treated accordingly. But if repeated tests are negative and no other cause of fever is detected, empirical anti-malarial treatment should be instituted as follows:
- Chloroquine (oral) - 600 mg(base), stat followed by 300 mg after 6 hours and then 150 mg twice daily for 2 days.
 - Anti pyretic like paracetamol (600 mg) - 2 to 3 times a day.
 - In severe pyrexia - physical methods of reducing temperature like cold sponging, ventilation, removal of the clothing should be instituted.
 - Patients with severe pyrexia are often dehydrated - adequate fluid replacement should be done.

- Specimens for investigating the cause of the fever should be taken. These include - Blood (parasites, hemogram and culture), urine for routine examination and culture, CSF for biochemical tests and microscopy, a chest X-ray should always be done if indicated.

(e) **Respiratory
Dyspnoea**

- Patient with severe dyspnoea should be kept in a propped-up position with adequate ventilation and should be rehydrated.
- Oxygen therapy should be instituted.
- In case of bronchospasm, Broncho dilators like Salbutamol, Theophylline, Terbutaline should be given with care.
- In all cases of severe respiratory embarrassment chances of secondary bacterial infection should be reduced by using appropriate chemotherapeutic agents like Amoxycillin, co-trimoxazole.
- Sometimes severe respiratory distress e.g. in pneumocystis Carinii pneumonia may necessitate addition of Cortico Steroid therapy as life saving measure.

(f) **Abnormal Mental
Condition**

- Fits or seizures - often manifestation of a local lesion in the brain and where required anti convulsant therapy like intravenous diazepam/phenytoin/phenobarbitone should be instituted immediately. All efforts should be made to exclude tuberculosis and toxoplasmosis which are treatable.
- Dementia - should be detected early and supportive measures instituted. These include - education of the immediate family members about the behaviour of the patient, exclusion of the patient from hazardous occupations and in severe cases restriction within the house.
- Psychosis - manifested by violent behaviour - should be immediately managed using psychotropic agents e.g. chlorpromazine, haloperidol etc.

organic depression -
primary rather than secondary -
which has less
anticholinergic reaction

Depression - should be treated as per psychiatric management.

Unconsciousness - usual care for unconscious patients like, maintenance of nutrition, good hygiene, maintenance of airway, keeping the bed dry, to avoid bed sores should be instituted. In addition antibiotic therapy may be instituted to prevent hypostatic pneumonia.

Chest-physiotherapy is desirable.

Exercise 2.3

1. A forty year old man presents in a state of severe dyspnoea and gives a history of recent return from a country where HIV is highly prevalent. He lived there for years and had sex with many partners. A quick look at his oral cavity shows thick coatings of thrush. On suspicion of HIV infection, the patient is immediately referred to the referral hospital, fifty miles away for further diagnosis and management. While in the taxi the patient's condition worsens.

Questions

- (i) What mistake was made at the first hospital?
- (ii) How the patient could be managed by attending clinician?

2. One year old child is brought to the hospital with a history of loose stools for the past 3 days with fever of 40°C. The child is not eating well due to sore and white patches in the mouth

Further questioning reveals that mother has not been attending well baby clinics regularly and does not know the right foods to feed the child. The doctor makes a diagnosis of Marasmus and initiates the child on high protein diet and sends a consultation to the Nutritionist to educate the mother on proper feeding.

Questions

- (i) What other measures would you take in the care of this patient?
- (ii) What would be your line of management if the child suddenly develop convulsions? What is the possible cause?

3. A young woman was admitted to the medical emergency with severe diarrhoea, and mild abdominal pain for 3 days. Examination revealed white patches in the oral cavity, dehydration, rapid pulse, a blood pressure of 90/70 mm Hg and a loss of skin elasticity.

Questions

- (i) What will be your first line of management?
- (ii) What specific treatment can you give to this patient, even without any investigations?

MODULE - 2.4 (3 hours)

TOPIC: SPECIFIC TREATMENT AIMED AT DIFFERENT ETIOLOGICAL AGENTS

- Teaching goals** : The purpose of this session is to enable the participants to know the specific treatment for conditions occurring in HIV infections, diagnosed definitely or presumptively.
- Learning Objective** : At the end of the session the participants should demonstrate their understanding of the specific treatment for different conditions by:
- i) discussing the criterion which they will use to make a decision for giving specific treatment aimed at the following etiological agents.
 - ii) outlining the drugs their dosage, mode of administration and their side effects.
- Materials** : See Information Notes III-A, III-B, III-C, III-D
- Training Strategy** : The following teaching strategy should be used for specific treatment of conditions occurring in different systems of the body. The trainer should present the information on specific treatments as a hand out. The class should be divided into four groups and each given a task to discuss the criterion for giving specific treatment against one of the four groups of Etiological agents in Information Notes III A-D. The aim should be to elicit clinical decision making with regard to treatment against specific agents.
- Assessment Exercise** : See Exercises III A and III C.

MODULE 2.4

SPECIFIC TREATMENT

INFORMATION NOTE: 2.4A

SPECIFIC TREATMENT FOR RESPIRATORY CONDITIONS

Figure III shows an logarithmic approach to management of respiratory conditions.

- (a) **Tuberculosis :** Definitive diagnosis of tuberculosis is based on finding AFB in the sputum. Presumptive diagnosis can be made based on clinical symptoms, signs and a suggestive X-ray.

Treatment - the four drug regimen of Rifampicin -10 mg/kg/daily, INH - 5-10 mg/kg/daily (Max 300 mg), Pyrazinamide 25 mg/kg/daily and Ethambutol - 15 mg/kg/daily - for two months followed by a two drug regimen for 7 months excluding pyrazinamide. Other anti-tubercular drugs may be thought of after getting sensitivity report.

(Refer to Indian Tuberculosis Control Programme Guidelines).

N.B. : Thiacetazone should not be used in HIV infected patients because of a high rate of hypersensitivity reactions.

- (b) **Pncumo Cystis : Carinii**
Pneumonia Definitive diagnosis of Pncumo Cystis Carinii Pneumonia is based on the finding of cysts of PC in the induced sputum or in bronchoalveolar lavage.

A presumptive diagnosis can be made in presence of HIV condition by clinical symptomatology like dry cough, exertional dyspnoea and a suggestive chest X-ray showing bilateral interstitial infiltrates.

Treatment : Trimethoprim (TMP) 15 mg/kg daily plus Sulfamethoxazole (SMX) 75 mg/kg for 3 days intravenous infusion through side tube of I.V. line taking a time of 60-90 minutes for a dosage.

When the patient improves oral co-trimoxazole is started in a dose of TMP 20 mg/kg + SMX 80 mg/kg for the rest of the days in total duration of 21 days.

Pentamidine Isothianate - 3-4mg/kg Intravenously daily with 5% dextrose - slowly shall be given for 7-14 days. Intra-muscular injection is contra indicated as it produces painful abscesses. Pentamidine may also cause hypoglycemia and hypotension, which should be monitored accordingly, if they occur.

Secondary prophylaxis

Dapsone 100 mg daily or Co-trimoxazole ds. 2 tablets per week or pentamidine isothionate nebulizer 60 mg inhalation once in three weeks or pyrim I.v pentamidine.

(c) **Bacterial** : A presumptive diagnosis is made by clinical **Pneumonia** symptomatology of fever, chest pain, cough with purulent sputum and signs of pneumonia and by suggestive chest x-rays with leukocytosis.

Treatment : 10,00000-20,00000 every 6 hourly Injection Benzyl Penicillin intravenously to start with and, depending on the sputum culture and sensitivity report, - appropriate antibiotics for 2 weeks.

(d) **Pulmonary Fungal Infections** : A definitive diagnosis of pulmonary fungal infection is made when the fungal organism (cryptococcus, Histoplasma etc.) is seen in the sputum. A Presumptive diagnosis can be made if a patient who has been receiving prolonged antibiotics or steroid therapy develops a chronic dry cough. Treatment should be given only after demonstration of fungus in the sputum.

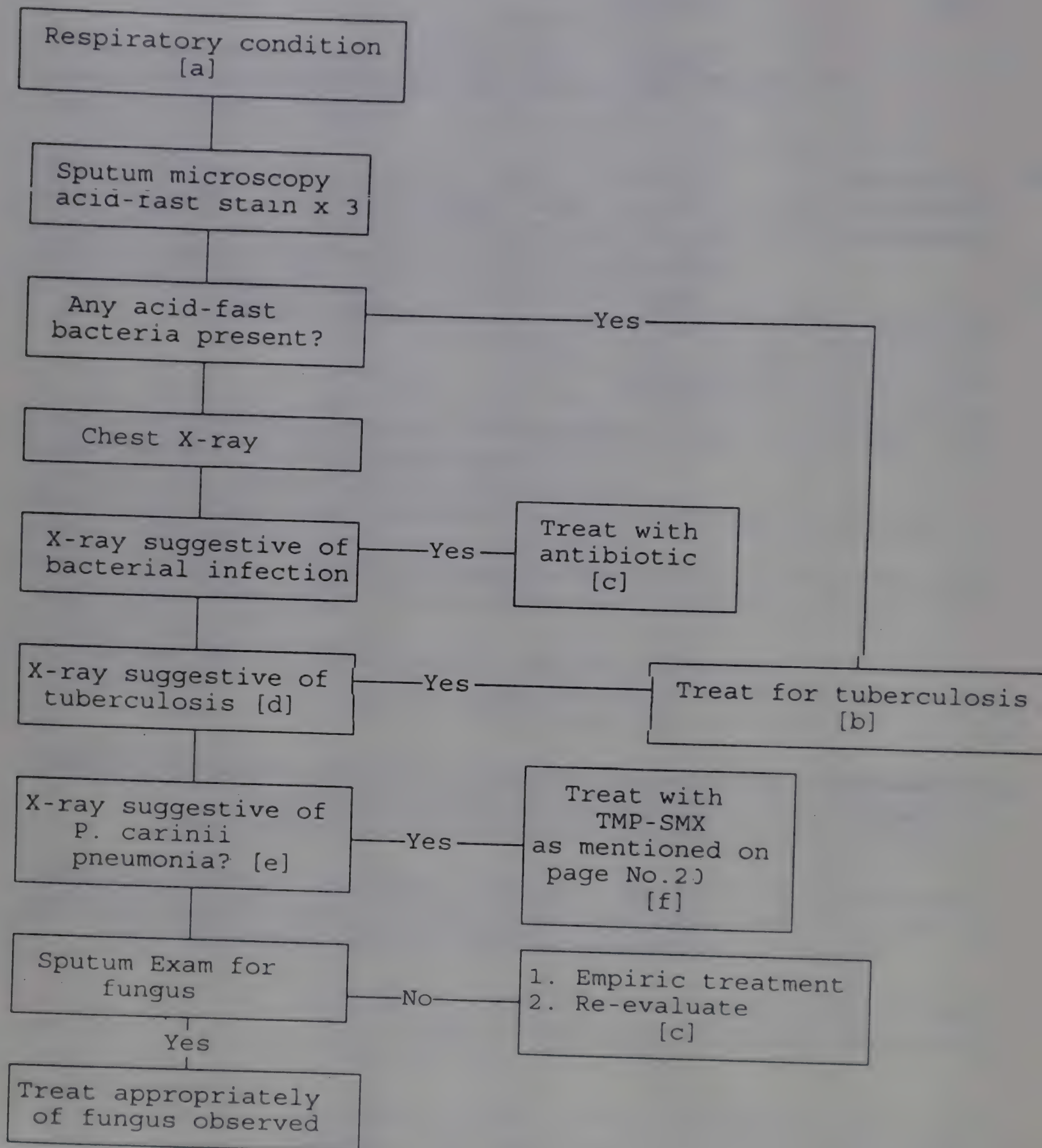
Treatment

- (i) Amphotericin B 0.5-0.7mg/kg of body weight Intravenously over 4-6 hours daily for 6 weeks if tolerated. Sodium chloride should not be used for giving I.v Amphotericin-B. 10 ml Sodium Bicarbonate should be used in every bottle of 5% dextrose used for giving Amphotericin-B. Sodium Bicarbonate reduces Amphotericin induced phlebitis. (Start with a low dose of .25 mg/kg and raise the dose slowly).
- (ii) Alternative treatment is with Fluconazole tablets 200-400 mg daily for 4-6 weeks.

(e) **Pulmonary Tumors** : Diagnosis by histological Examination of a lymphnode aspirate by FNAC or a biopsy specimen by bronchoscopy.
(Kaposi's Sarcoma micronchoscopy or Lymphoma)

Decision to treat using chemotherapy or radiotherapy should be taken by the physician, the patient and the patient's family after weighing the advantages of therapy against the side effects.

RESPIRATORY CONDITIONS



MODULE 2.4

GASTRO INTESTINAL TRACT

INFORMATION NOTE : 2.4B

Figure IV, and Figure V show the algorithmic approach to management of oral thrush and chronic diarrhoea.

- (a) **Oral Thrush** : A definitive diagnosis can be made clinically based on the finding of whitish plaques on the oral mucosa which can be easily removed to reveal a bleeding surface. This diagnosis can be confirmed by microscopic examination of mouth scraping for pseudo hyphae and blastosphere of Candida.

Treatment

- (i) Oral application of 1% aqueous Gentian Violet daily for 7 days. If no improvement
- (ii) Hamycin suspension
- (iii) Clotrimazole lozenges
- (iv) Nystatin oral suspension or tablets (100,000.. I/U three times daily for 7 days.
- (v) Ketoconazole - 200mg twice daily for 14 days.
(provided liver function tests are normal)

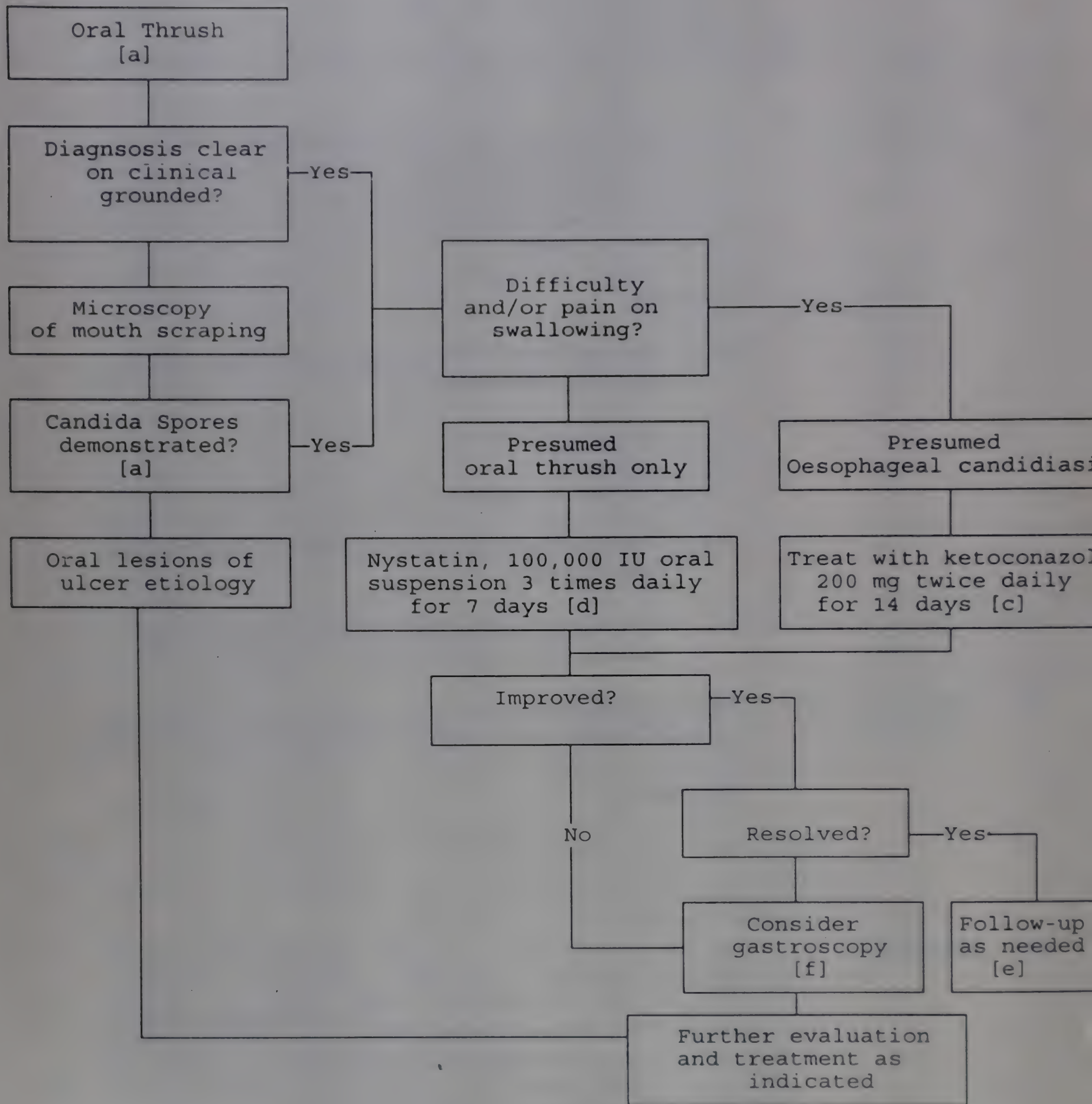
- (b) **Oesophageal Candidiasis** : This is suspected if a patient with oral thrush and/or pharyngeal extension complains of dysphagia or odynophagia.

Treatment

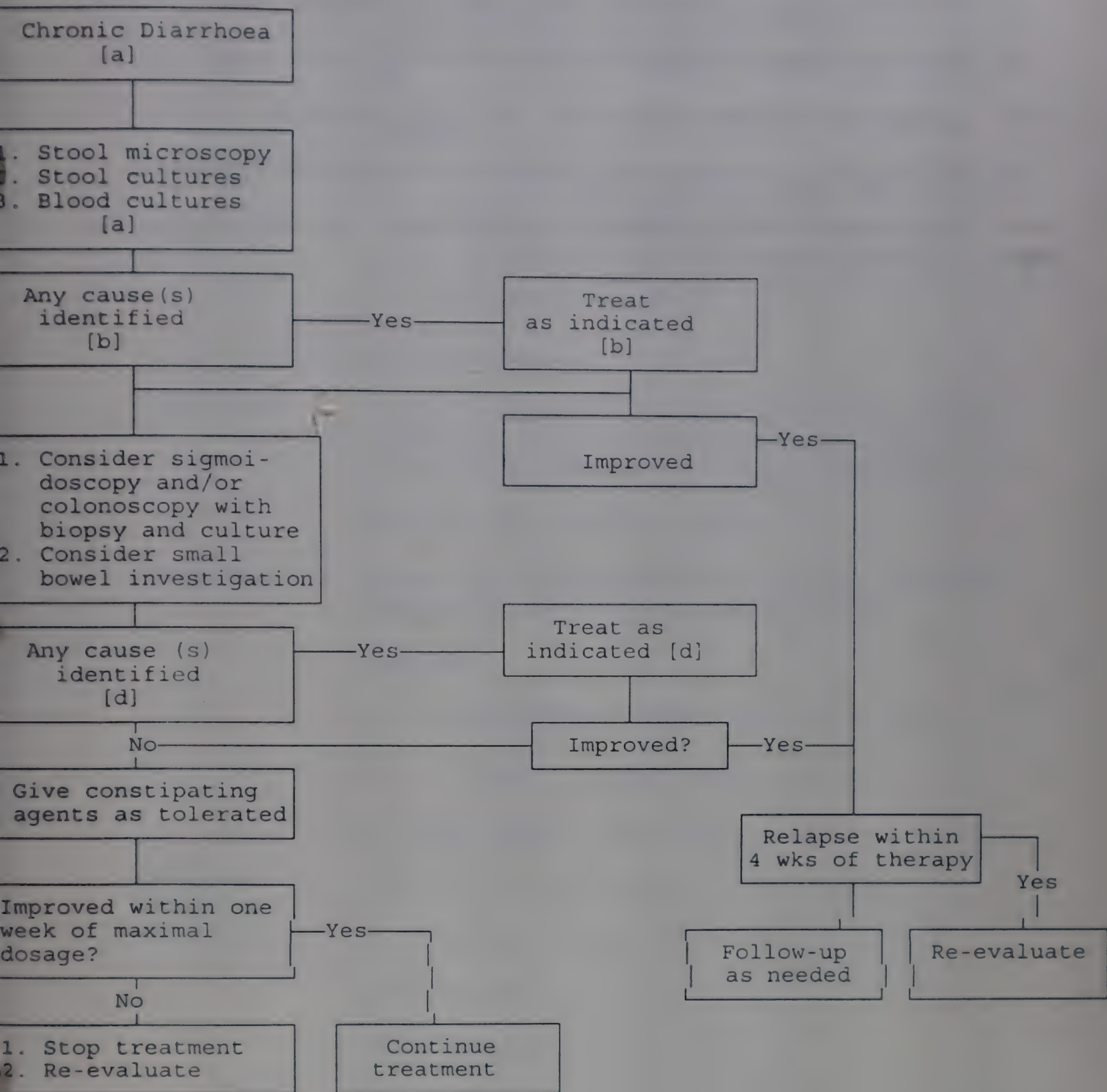
- (i) Ketoconazole - 200 mg twice daily orally for 5 days.
- (ii) Fluconazole - 100 mg daily orally for 2 weeks.

- (c) **Diarrhoea** : Specific causes of diarrhoea could be - Cryptosporidium, Giardia lamblia, Entamoeba, Salmonella, Shigella, Campylobacter, Strongyloidiasis, Mycobacterium Avium Intracellulare complex, Isospora Belli, Cytomegalovirus, Herpes virus. Specific etiology can be identified by microscopic examination of the stool, stool culture. In fifty percent of HIV related chronic diarrhoea the cause can not be determined, and the probable cause of this diarrhoea is thought to be HIV itself. (This may be HIV induced enteropathy).

ORAL THRUSH



CHRONIC DIARRHOEA



Treatment

- (i) Giardia and Amoeba _ Metronidazole - 400 mg three times daily for 7 days.
- (ii) Salmonella, Shigella and Isospora - Cotrimoxazole-2 twice daily for 7 days.
- (iii) Campylobacter is sensitive to erythromycin - 500 mg QID for 2 weeks.
- (iv) Strongyloidosis - Albendazole 200 mg single dose to be repeated after 3 weeks.
- (v) Mycobacterium Avium Intracellular & Cryptosporidium - No specific treatment. Only symptomatic treatment. (Spiramycin may be tried)

INFORMATION NOTE : 2.4C
SKIN AND GENITAL SYSTEM

- (a) **Herpes Simplex :** A presumptive diagnosis of herpes simplex in HIV infection is made based on the finding of painful ulcerative blisters, (chronic but with a history of recurrence) especially in the anogenital area and on the lips.

Treatment

- (i) Acyclovir - 200 mg five times daily orally for 5 days.
(Effective if started within three days of onset)
- (ii) Care for the lesions (Topical antibiotic if super added bacterial infection present).
- (iii) Topical acyclovir

- (b) **Herpes Zoster :** A definitive diagnosis is made based on the finding of blisters spreading over a well demarcated dermatomal or multidermatomal area on the skin. Lesions may be generalized or relapsing in nature.

Treatment : Same as for Herpes Simplex.

- (c) **Genital Warts:** A presumptive diagnosis is made based on the finding of verruconos swelling on the skin (usually not painful, not itching).

Treatment

- (i) 25% podophyllin - applied on the tips of the warts.
- (ii) Cryotherapy with liquid Nitrogen if available.
- (iii) Surgical excision or electrocautery

- (d) **Extragenital:
Contagiosum
Molluscum** Pearly white papular eruptions with central umbilication

- (i) Chemical cautery after derroofing with
- (ii) Electro cautery
- (iii) Cryotherapy

- (e) **Fungal Infection:** A presumptive diagnosis of fungal infection is based on the finding of itchy, Scaly, dispigmented lesions with a typical active edge and healing centre. Vaginal discharge and vaginal itching are to be checked.

Treatment:

- (i) Clotrimazole ointment apply twice daily for 2 weeks.

(ii) Whitfield's ointment applied twice daily for 2 weeks.

(iii) Miconazole ointment applied twice daily for 2 weeks.

(iv) Griseofulvin or Ketoconazole to be given orally.

(f) **Syphilis** : A presumptive diagnosis of primary syphilis is based on the history of a painless genital ulcer and painless inguinal lymphadenopathy and a non itchy symmetrical papulosquamous skin rash extending into the palms and soles along with generalized lymphadenopathy. A positive VDRL test is helpful.

Secondary Syphilis is characterized by bilateral pleomorphic condyloma lata is to be seen over mucocutaneous junctions.

Treatment : Injection Benzathine Penicillin - 2.4 mega unit I/M once.

(g) **Bacterial Infection of the Skin** :

A presumptive diagnosis of Bacterial infection of the skin (furunculosis Impetigo, pyoderma, folliculitis) is made on the finding of a painful, inflamed swollen and suppurative lesions on the skin or under the skin.

Treatment

(i) Systemic anti microbial therapy (Penicillin, tetracycline) for two weeks.

In severe cases, or on culture and sensitivity - appropriate therapy can be given.

(h) **Chancroid**

Multiple painful shallow ulcers over genitalia with or without inguinal bubo.

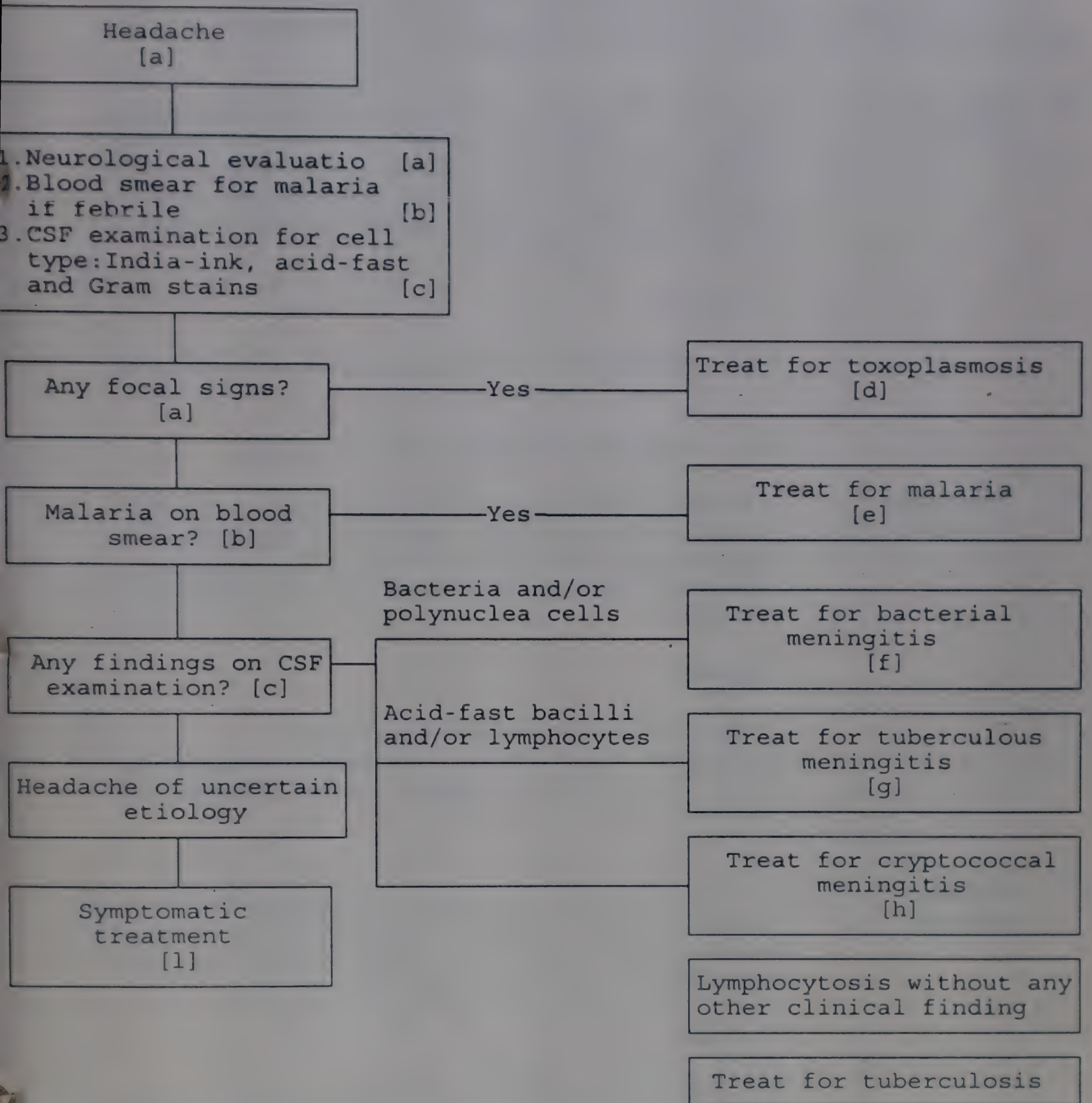
Treatment: Co-trimoxazole (80 mg TMP+400 SMX) 3 tablets twice daily for 7 days. Ciprofloxacin 500 mg - once (single dose).

(i) **Gonorrhoea**

Thick creamy yellow genital discharge with burning sensation during micturition (diagnosed by gm stain and culture of the genital discharge).

Treatment : Co-trimoxazole : 10 tablets for successive 3 days. Ciprofloxacin 500 mg-(Single dose treatment)

HEADACHE



INFORMATION NOTE : 2.4D

CENTRAL NERVOUS SYSTEM

Figure VI shows the logarithmic approach to management of CANS conditions that cause headache.

- (A) **Cryptococcal Meningitis** : A definitive diagnosis is made based on the findings of the organisms in the CSF. A presumptive diagnosis is made based on the clinical finding of fever, neck stiffness, headache, +ve Kernig's sign and serological finding of cryptococcal antigen in the serum. A definitive diagnosis is done by demonstration of the organism in C.S.F by india-ink preparation

Treatment

- (i) Amphotrecin B 0.5-0.7 mg/kg daily I/V over 4-6 hours for 6 weeks. If not tolerated
- (ii) Fluconazole - 200-400 mg daily for 12 weeks.

- (b) **Tuberculous Meningitis** : A definitive diagnosis is made based on the finding of AFB in CSF. Presumptive diagnosis can be made based on clinical features of fever, headache, neck rigidity, +ve Kernig's sign and finding of moderately low sugar in CSF increased protein and lymphocytosis in the CSF.

Treatment

Treatment with standard Antituberculosis regimen. (as mentioned in page 22), use of corticosteroid, if indicated with caution, Pyrazinamide to be continued with INH 2 Rifampicin for 9 months.

- (c) **Pyogenic Meningitis** : A definitive diagnosis is made based on the finding of bacteria in the CSF presumptive diagnosis can be made based on clinical finding of fever, headache, neck rigidity, Kernig's sign and leucocytosis, very low sugar and high protein in C.S.F.

Treatment

High doses of Benzyl penicillin - 12-24 mega units daily in divided doses every 4 hours (if no response within 48 hours, change according to culture sensitivity report of C.S.F.)

- (d) **Toxoplasmosis:** A presumptive diagnosis is made based on the finding of radiological and clinical evidence of a focal brain lesions.

Treatment

Pyrimethamine 75-100 mg + Sulfadiazine 6-8 mg daily in four doses for 6-8 weeks. If the response is good, lifelong suppressive therapy is needed. Pyrimethamine 25mg daily + Sulfadiazine 2-4 gm daily.

Exercise 2.1

1. A young woman aged 25 years, reported to the Surgical Department with a swelling in the right axilla which on examination was found to be a non-tender non-matted lymph node enlargement. The gland was biopsied and histology showed a non-specific hyperplasia. However, the biopsy wound did not heal and despite daily dressing, a discharging sinus formed.

The case was referred to a physician who on questioning, revealed a history of blood transfusion for which no proper screening of the blood was done. On examination, the physician identified similar enlarged lymph nodes in other extra-inguinal sites, and the spleen was palpable 1½ cm below the costal margin, and it had a firm consistency.

Questions

- (i) What do you think is a probable diagnosis of the case?
- (ii) What laboratory tests would you like to do in this case and why?
- (iii) Why a non-healing sinus was formed?

Tuberculosis

Exercise 2.2

A 25 years old man with a life style history of multisexual partners reports to the hospital with severe burning pain and itching in the upper part of the right side of his face. The attendant physician also elicits a history of a similar episode 6 months ago on the patient's trunk. Examination reveals a scar which looks like a burn mark on the trunk. The physician immediately initiates treatment.

Questions

- (i) What is the diagnosis for this condition?
- (ii) What treatment did the physician initiate?
- (iii) What are the potential complications of this condition and how can they be prevented?

Exercise 2.3

1. An HIV infected patient was diagnosed and treated for pneumocystis Carinii Pneumonia. He was reviewed and found to be improving on the treatment and was sent home on maintenance therapy. Two days later, the patient was returned to the hospital with severe itching and skin excoriation and bleeding blisters on the lips.

Questions

- (i) What is the likely cause of the new condition?
- (ii) What would be your line of management?

2. A 21 years old man with HIV infection and herpes zoster is discharged from the hospital. He will now return to his family, wife and two children in a slum area. Which advice do you give to this man, who is otherwise healthy?

Exercise 2.4

A 37 years old woman is admitted because of severe headache, that has started one month ago. Initially she had a short episode of fever, but no neurological signs. She has been to be local doctor who presented pain medication. However the symptoms less become worse. While taking a history the women report to a positive HIV test, done three years ago. On physical examination she has some meningismus but no other physical finding.

Questions

1. What is the likely diagnosis?
2. How do you proceed with this patient?

MODULE - 2.5

TOPIC : EMPIRICAL TREATMENT

Teaching goals	:	To enable the participants to learn treatment modalities that can be given to AIDS patients, when no definitive etiological diagnosis can be made, with the aim of covering the most prevalent etiologic agents.
Learning objective	:	<p>At the end of the session the participants should be able to make a selection of treatments or combination of treatments aimed at treating the likely etiological causes of common HIV/AIDS conditions, for example:</p> <ul style="list-style-type: none">(i) Respiratory conditions(ii) Gastro Intestinal condition with symptoms like oral thrush dysphagia, diarrhoea and others.
Materials	:	Information Note IV and Extracts from WHO Guidelines on Clinical Management.
Teaching Strategy	:	The trainer will give a short presentation, using slides and overheads, of the empirical treatment of AIDS related conditions as in Information Note IV and guide the participants in a discussion of the reasons for choosing these Empirical treatments.
Assessment Exercise	:	See Exercise 2.5

INFORMATION NOTE : 2.5

EMPIRICAL TREATMENT

Introduction:

By Empirical treatment we mean a treatment given based on local epidemiological causes of a condition without a definitive diagnosis.

It is not always possible to identify the causative agents. The choice of treatment depends on findings of epidemiological studies of the most prevalent causes of the condition. In some instances, treatment may be combined in order to cover the most common and treatable etiological causes.

(a) Fever :

Empirical treatment in should cover Malaria and if no response is observed, bacterial cause should be considered and treated with broad spectrum antibiotics and if no response is observed, a trial of antituberculous therapy for 6 weeks should be given.

Figure VII shows the management of Fever and the role of Empiric treatment.

(b) Diarrhoea:

Empirical treatment should cover bacterial causes (Cotrimoxazole), protozoal, viral and iatrogenic (withdrawal drugs) causes (metronidazole), if no response anti helminthic treatment (Albendazole) should be given. The likely cause of bloody diarrhoea not responding to the above regimen, when the patient has fever and leucocytes or pus cells in the stool is *Campylobacteria* spp. which can be treated using Erythromycin 500 mg four times daily.

(c) Respiratory conditions :

Empirical treatment should cover pyogenic bacteria (amoxycillin for one week), if no response cotrimoxazole.

If after such treatment the patient's condition worsens by clinical and radiological evidence this may warrant trial of anti tuberculous therapy for six weeks.

(c) Headache and pain :

All efforts should be made to investigate the causes of headache or pain elsewhere. If no cause and no associated finding like fever etc., symptomatic therapy should be instituted.

Exercise 2.5

1. A young man, HIV +ve complains of cough with scanty expectoration and has lost considerable weight over the past one month. He has received a course of ampicillin for one week followed by a course of cotrimoxazole for 2 weeks with no improvement. Sputum examination done 3 times showed no abnormality. Chest X-ray done on two occasions showed some noduro-interstitial shadow. Mantoux test was negative.

Questions

(i) What is the probable diagnosis?

(ii) How do you manage this case?

2. A man aged 26 years presents with a history of loss of weight fever, unproductive and swelling in the mouth for the last 2 months.

Examination revealed a wasted, febrile man with a purplish red swelling on the hard palate. He had a cervical lymphadenopathy chest x-ray revealed bilateral plural effusion and a left middle zone infiltrates.

Questions

(i) What signs does this patient presents that will make you think of AID?

(ii) What is the likely cause of the disease?

- pleural effusion
- Cervical lymphadenopathy

(iii) What further investigation will you like to do?

MODULE - 2.6 (1 hour)

TOPIC : PATIENT FOLLOW UP PROTOCOL

Teaching goal	:	Aim of this session is to enable the participants to develop definite plans of follow up of patients after the initial management.
Learning Objectives	:	<p>At the end of the session, the participants should be able to outline the plans of follow up of patients including :</p> <ul style="list-style-type: none">(i) monitoring of response to their treatment and side effects, if any.(ii) changing of treatment as and when necessary.(iii) making decisions regarding palliative care when the need develops.(iv) educating patient's family for home-care.
Materials	:	Information Note 2.6
Teaching Strategy	:	The trainer will give a presentation of the goals of follow up and discuss the chronic and worsening nature of the disease and the need to involve, the patient and the family in discussing the plan of treatment. The participants should be given a chance to demonstrate their approach to making plans for patients follow up.
Assessment Exercise	:	Exercise 2.6

INFORMATION NOTE : 2.6

(a) FOLLOW UP PROTOCOL

Reference should be made to the algorithms of WHO Clinical Management/Guidelines (Figures III to VII). They show the logical steps to be taken after the patient has received the initial treatment (specific and empirical treatment). These charts also contain decision boxes which give guidance for further management.

They represent the clinical follow up protocol for eight major conditions related to HIV infection.

(b) HOME BASED CARE

After management with the hospital the patient and the family should be given education about

- the common condition likely to affect the patient
- the immediate management of these conditions
- the likely side effects of the medicine given to the patient.
- counselling and educating family members for biosafety.
- reporting to the caring physician or hospital at the earliest when any problem appears in future.

In particular, the remedies for relief of the following symptoms should be given :

- | | | | |
|-------|-----------------------|---|---|
| (i) | Fever | - | Aspirin, tepid sponging |
| (ii) | Pain | - | Aspirin, Paracetamol |
| (iii) | Cough | - | Codeine linctus or cough mixture |
| (iv) | Vomiting & Diarrhoea- | | Oral rehydration /metoclopramide/domperidone |
| (v) | Sore and wounds | | |
| | on the skin | - | Washing with warm water and keeping dry. |
| | | - | Application of gentian violet or betadine ointment. |

(c) TERMINAL CARE

Care of terminally in patient is best done at home.

In terminally in patient, physician should embark on symptomatic relief.

- (i) Emotional support for the patient and the family involving frank discussions of the prognosis and of any decisions for further treatment.
- (ii) Involving of spiritual care.
- (iii) Nursing care to avoid wetting and soiling of the bed and undue exposure and untidiness of the patient.
- (iv) Adequate nutritional support and rehydration.

- (v) Symptomatic relief of disturbing symptoms(e.g. headache), that keep the patient awake and lesions that affect nutrition (e.g. severe oral thrush).

Disposal of the Deadbody

- Cremation of the dead body is the ideal method of disposal. The relatives of the dead should be counselled accordingly.
- If burial is insisted upon due to social and religious beliefs, the dead body should be wrapped first in the cloth sheet soaked in bleaching power solution and then a locally available waterproof sheet (plastic/polythene) should be used to cover the entire body over the cloth.
- The dead body should be disposed of at the earliest without any delay.
- Unwrapping and direct handling of the dead body should not be allowed even for rituals.
- Mutilations during cremation as practiced in certain parts of the country are to be avoided.

Handling and disposal of blood/urine/stool/vomits/body secretions by family members

- Plenty of household plastic bags/polythene bags/tissue paper to be kept ready at bedside.
- Relatives having obvious cuts on the hand should avoid handling of body secretions.
- After handling body secretions, soap should be used liberally to wash hand.
- Soiled linen and clothes should be soaked in bleach solution for $\frac{1}{2}$ hour and should be washed in usual way after that.
- Blood should be soaked in tissue paper or blotting paper and or cotton and then the paper or cotton should be burnt.
- The area of blood contamination should be moped with bleach solution.
- Vomits/stool/urine should be thrown away down the gutter.
- Container for keeping vomits, urine and stool should be cleaned with bleach solution.

Exercise 2.6

1. A lady was admitted in a hospital with a history of wasting, diarrhoea and dehydration. Stool microscopy and culture revealed no abnormality. Sigmoidoscopy showed a non-specific inflammation. HIV test was positive.

Question

(i) What is your management and follow-up protocol for this patient?

2. A young mother who is breastfeeding her baby consults a doctor because her husband has come down with AIDS. On subsequent examination, both the mother and her 10 month old child are found to be HIV positive. Their mother would like to know if she should continue breastfeeding.

Questions

(i) What additional information is needed?

(ii) What advise you would give to the mother?

**WHO recommendations for HIV testing strategies
according to test objectives and prevalence
of infection in the population**

Objective of testing	Prevalence of infection	Testing Strategy*
Transfusion/donation safety	All prevalences	I
Surveillance	>10%	I
	≤10%	II
Clinical signs/ symptoms of HIV infection/AIDS	All prevalences	II
Diagnosis	>10%	II
Asymptomatic	≤10%	III

* Strategy I : All samples are tested with one ELISA or rapid/simple (hereafter referred to as test).

Strategy II : All samples first tested with one test. Any reactive samples are subjected to second test based on a different principle and/or different antigen preparation.

Strategy III : All samples are first tested with one test. Any reactive samples are tested with a different test. Samples found reactive by the second test are subjected to a third and different test.

1987 REVISION OF CDC/WHO CASE DEFINITION FOR AIDS SURVEILLANCE PURPOSES

For national reporting, a case of AIDS is defined as an illness characterized by one or more of the following "indicator" diseases, depending on the status of laboratory evidence of HIV infection, as shown below.

I. Without laboratory evidence regarding HIV infection

If laboratory tests on HIV were not performed or gave inconclusive results (see Appendix I) and the patient had no other cause of immunodeficiency listed in Section I.A below, then any disease listed in Section I.B indicates AIDS if it was diagnosed by a definitive method (see Appendix II).

A. Causes of immunodeficiency that disqualify diseases as indicators of AIDS in the absence of laboratory evidence for HIV infection.

1. High dose or long term systemic, corticosteroid therapy or other immunosuppressive/cytotoxic therapy for ≤ 3 months before the onset of the indicator disease.
2. Any of the following diseases diagnosed ≤ 3 months after diagnosis of the indicator diseases Hodgkin's disease, non-Hodgkin's lymphoma (other than primary brain lymphoma), lymphocytic leukaemia, multiple myeloma, any other cancer of lympheticular or histiocytic tissue, or angioimmunoblastic lymphadenopathy.
3. A genetic, or congenital, immunodeficiency syndrome, or an acquired immunodeficiency syndrome atypical of HIV infection, such as one involving hypogammaglobulinaemia.

B. Indicator diseases diagnosed definitively (see (Appendix II).

1. Candidiasis of the oesophagus, trachea, bronchi or lungs.
2. Cryptococcosis, extrapulmonary.
3. Cryptosporidiosis with diarrhoea persisting month.
4. Cytomegalovirus disease of an organ other than liver, spleen, or lymph nodes in a patient ≥ 1 month of age.
5. Herpes simplex virus infection causing a mucocutaneous ulcer that persists ≥ 1 month; or bronchitis, pneumonitis, or oesophagitis for any duration affecting a patient > 1 month of age.
6. Kaposi sarcoma affecting a patient < 60 years of age.
7. Lymphoma of the brain (primary) affecting a patient < 60 years of age.

8. Lymphoid interstitial pneumonia and/or pulmonary lymphoid hyperplasia (LIP/PLH complex) affecting a child < 13 years of age.
9. Mycobacterium avium complex or M. kansasii disease, disseminated (at a site other than or in addition to lungs, skin, or cervical or hilar lymph nodes).
10. Pneumocystis carinii pneumonia.
11. Progressive multifocal leukoencephalopathy.
12. Toxoplasmosis of the brain affecting a patient >1 month of age.

II. With laboratory evidence for HIV infection

Regardless of the presence of other causes of immunodeficiency (I.A.), in the presence of laboratory evidence of HIV infection (see Appendix I), any disease listed above (I.B.) or below (II.A or II.B) indicates a diagnosis of AIDS.

A. Indicator diseases diagnosed definitively (see Appendix II)

1. Bacterial infections, multiple or recurrent (any combination of at least 2 infections within a 2-year period) of the following types affecting a child < 13 years of age:

Septicaemia, pneumonia, meningitis, bone or joint infection, or abscess of an internal organ or body cavity (excluding otitis media or superficial skin or mucosal abscesses), caused by Haemophilus, Streptococcus (including pneumococcus), or other pyogenic bacteria.
2. Coccidioidomycosis, disseminated (at a site other than or in addition to lungs or cervical or hilar lymph nodes).
3. HIV encephalopathy (also called "HIV dementia", "AIDS dementia," or "subacute encephalitis due to HIV") (see Appendix II for description).
4. Histoplasmosis, disseminated (at a site other than or in addition to lungs or cervical or hilar lymph nodes).
5. Isosporiasis with diarrhoea persisting > 1 month.
6. Kaposi's sarcoma at any age.
7. Lymphoma of the brain (primary) at any age.
8. Other non-Hodgkin's lymphoma of B-cell or unknown immunological phenotype and the following histological types:
 - a. small noncleaved lymphoma (either Burkitt or non-Burkitt type);
 - b. immunoblastic sarcoma (equivalent to any of the following, although not necessarily all in combination: immunoblastic lymphoma, large-cell lymphoma, diffuse histiocytic lymphoma, diffuse undifferentiated lymphoma, or high-grade lymphoma).

Note: Lymphomas are not included here if they are of T-cell immunological phenotype or their histological type is not described or is described as "lymphocytic", "lymphoblastic", "small cleaved", or "plasmacytoid lymphocytic".

9. Any mycobacterial disease caused by mycobacteria other than *M.tuberculosis*, disseminated (at a site other than or in addition to lungs, skin, or cervical or hilar lymph nodes).
10. Disease caused by *M.tuberculosis*, extrapulmonary (involving at least 1 site outside the lungs, regard less of whether there is concurrent pulmonary involvement).
11. *Salmonella* (nontyphoid) septicaemia, recurrent.
12. HIV wasting syndrome (emaciation, "slim disease") (see Appendix II for description).

B. Indicator diseases diagnosed presumptively (by a method other than those in Appendix II)

Note: Given the seriousness of diseases indicative of AIDS, it is generally important to diagnose definitively, especially when therapy that would be used may have serious side effects, or when definitive diagnosis is needed for eligibility for antiretroviral therapy. Nonetheless, in some situations, a patient's condition will not permit the performance of definitive tests. In other situations, accepted clinical practice may be to diagnose presumptively based on the presence of characteristic clinical and laboratory abnormalities. Guidelines for presumptive diagnoses are suggested in Appendix III.

1. Candidiasis of the oesophagus.
2. Cytomegalovirus retinitis with loss of vision.
3. Kaposi's sarcoma.
4. Lymphoid interstitial pneumonia and/or pulmonary lymphoid hyperplasia (LIP/PLH complex) affecting a child < 13 years of age.
5. Mycobacterial disease (acid-fast bacilli with species not identified by culture), disseminated (involving at least 1 site other than or in addition to lungs, skin or cervical or hilar lymph nodes).
6. *Pneumocystis carinii* pneumonia.
7. Toxoplasmosis of the brain affecting a patient > 1 month of age.

III. With laboratory evidence against HIV infection

With laboratory test results negative for HIV infection (see Appendix I), a diagnosis of AIDS for surveillance purposes is ruled out unless:

- A. all the other causes of immunodeficiency listed above in Section I.A are excluded; AND
- B. the patient has had either:

1. *Pneumocystis carinii* pneumonia diagnosed by a definitive method (see Appendix II); OR
2.
 - a. any of the other diseases indicative of AIDS listed above in Section I.B diagnosed by a definitive method (see Appendix II); AND
 - b. T-helper/induced (CD4) lymphocyte count $<400/\text{mm}^3$.

PROVISIONAL WHO CLINICAL CASE DEFINITION FOR AIDS

Adults

AIDS in an adult is defined by the existence of at least two of the major signs associated with at least one minor sign, in the absence of known causes of immunosuppression such as cancer or severe malnutrition or other recognized etiologies.

Major signs:

- (a) Weight loss for > 1 month.
- (b) Chronic diarrhoea for > 1 month.
- (c) Prolonged fever for > 1 month.

Minor signs:

- (a) Persistent cough for > 1 month.
- (b) Generalized pruritic dermatitis.
- (c) Recurrent herpes zoster.
- (d) Oropharyngeal candidiasis.
- (e) Chronic progressive and disseminated herpes simplex infection.
- (f) Generalized lymphadenopathy.

The presence of generalized Kaposi's sarcoma or cryptococcal meningitis are sufficient by themselves for the diagnosis of AIDS.

Children

Paediatric AIDS is suspected in an infant or child presenting with at least two major signs associated with at least two minor signs in the absence of known causes of immunosuppression.

Major signs:

- (a) Weight loss or abnormally slow growth (failure to thrive)
- (b) Chronic diarrhoea for > 1 month.
- (c) Prolonged fever for > 1 month.

Minor signs:

- (a) Generalized lymphadenopathy.
- (b) Oropharyngeal candidiasis.
- (c) Repeated common infections (otitis, pharyngitis, and so forth).
- (d) Persistent cough for > 1 month.
- (e) Generalized dermatitis.
- (f) Confirmed maternal HIV infection.

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Ministry of Health & Family Welfare
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TRAINING OF COUNSELLING TRAINERS
A SELF-LEARNING MANUAL

September 1993

Table of contents

General Objectives	1
Plan of the Training Module	1
Session 1: Counselling and Communication skills	4
Session 2: Sex and Sexuality	6
Session 3: Attitudes and values	8
Session 4: Pre-test counselling	8
Session 5: Post-test counselling	10
Session 6: Integrating counselling into the day-to-day work of the physician	11
Session 7: Counselling case discussion	11
Session 8: Resource Mobilization	12

TRAINING OF COUNSELLING TRAINERS: A SELF-LEARNING MANUAL

GENERAL OBJECTIVE

The general objective of this training module is to encourage physicians to integrate counselling principles and practice in their work, with specific regard to HIV/AIDS.

PLAN OF THE TRAINING MODULE

This is a two-day training module, but can be adapted as appropriate to longer or shorter periods of training. The two-day programme of sessions is as follows:

Day 1:

(a) Morning

Session 1: Counselling and Communication (90 minutes)

Session 2: Sex and Sexuality (90 minutes)

Session 3: Attitudes and Values (60 minutes)

(b) Afternoon

Session 4: Pre-test Counselling (180 minutes)

Day 2:

(a) Morning

Session 5: Post-test Counselling (150 minutes)

Session 6: Integrating counselling into the day-to-day work of the physician (60 minutes)

(b) Afternoon

Session 7: Counselling Case Discussion (120 minutes)

Session 8: Resource Mobilisation (60 minutes)

Conduct of sessions:

The titles of all the sessions should be displayed on a flipchart at the start of the module, in order to give participants a sense of the structure and content of what will follow.

Every session should begin with an introduction of its aims, and end with a brief summary of its outcome. The aim of this is to establish a logical flow from session to session.

It is recommended that from Session 6 onwards, participants be encouraged to take over as facilitators, introducing sessions, leading plenary discussions, organising roleplays and summarising sessions.

Materials and equipment

Each session will require the following materials and equipment:

- * Flipcharts and paper
- * Pens
- * Overhead projector

Conduct of roleplays:

A roleplay is a rehearsal of a counselling session, often using a real case, in which one participant plays a counsellor, and one plays a person being counselled. A third participant may be designated as an observer, summarising the main issues highlighted in the drama.

The "case" being acted is presented on an overhead or flipchart prior to the roleplay being acted, and those doing the roleplay are given a brief time to prepare their roles together with the observer.

The roleplay process is as follows:

1. Divide participants equally into small groups;
2. Decide who in each group will be the counsellor, client and observer;
3. The small group prepares the drama;
4. The actors rehearse the drama;
5. The groups return to the plenary gathering;
6. The actors perform the roleplay;
7. Feedback is given by the client in the drama, followed by the observer;
8. The whole group discusses what they have seen.

All roleplay discussions should end with the facilitator of the session listing the **positive** parts of the counsellor's performance, followed by suggestions for improvement.

BACKGROUND MATERIALS

The primary resources for HIV counselling trainers and trainees participating in this module are as follows:

1. HIV/AIDS Counselling: A Manual for use in Training Workshops. National AIDS Control Organisation (NACO), Government of India, 1993. ("NACO Manual")
2. HIV/AIDS Counselling Training Manual. Tata Institute for Social Sciences 1993. ("TISS Manual")

NOTE: Throughout this training module, the terms "client" and "patient" will be used interchangeably to mean the person receiving counselling. Similarly, the word "counsellor" will be used throughout to mean the person giving counselling, irrespective of their profession.

SESSION 1: COUNSELLING AND COMMUNICATION SKILLS

AIMS:

1. To introduce group members and identify their prior experience with HIV counselling and management;
2. To identify and model listening and communication skills;
3. To identify some qualities of effective counselling.

ACTIVITIES:

1. Interview and report exercise.

This is a "warmup" exercise which also introduces the participants to the interactive style of this module, and helps them learn about each other.

The facilitator starts by explaining that before they start work, the participants will try to learn about each other.

The facilitator instructs participants to divide into pairs (the people in the pair should preferably not know each other well).

Each partner in the pair is asked to interview the other for five minutes in order to find:

- * Their name
- * Their place of origin
- * Their place of work
- * Their professional experience, and experience with HIV/AIDS
- * Their family status (married?, children?, etc.)
- * Their pastimes and interests
- * What they hope to achieve from the workshop.

After each partner has interviewed the other, they are asked to introduce their partner to the rest of the group, summarising the information they have learned. The facilitator reviews the striking points about the group, referring to the different skills present and emphasising that all participants will share what they know and that we can all learn from each other during the module.

2. Listening/Non-listening exercise.

- * The facilitator asks the group to form into pairs.
- * One person in each pair is a listener, and one is a speaker.
- * The speaker tells the listener about the happiest moment of his/her life.
- * The listener makes no eye contact, yawns, looks away, demonstrates that they are not listening and are completely disinterested in what the speaker is saying.
- * At a sign from the facilitator after three minutes, the listener then starts showing interest in what the speaker is saying, by making eye contact, asking questions, reflecting what the speaker is saying.

- * After a further three minutes, the exercise ends.
- * There follows a 'plenary' discussion in which the facilitator asks speakers how they felt during both sections of their discussion, how they felt about the listener, what features of the listener made them feel listened to, etc..

3. Being directive and non-directive.

- * The facilitator asks for two volunteers to roleplay a counselling session in front of the group.
- * The person being counselled acts as a young female college student who approaches the counsellor for contraceptive advice.
- * Her boyfriend wants to have sexual intercourse with her, and she wants to have a 'Copper T' inserted instead.
- * The counsellor should demonstrate periods of judgemental instruction-giving, and periods of acceptance and information-giving.

After the volunteers have spoken for ten minutes, the roleplay ends and all the participants are asked what they observed. In particular, they are asked for evidence of directive advice-giving, and signs of non-directive discussion in which information is given and options are explored at the patient's pace. Conclusions are drawn about how the 'agenda' of the counsellor may interfere with the counselling process, how each counsellor should recognise the existence and content of their own value system, and the value of directive and non-directive approaches to counselling.

It may be emphasised that being directive (giving advice) includes:

- * Telling someone what you think they should do;
- * Being judgemental about their present or anticipated behaviour.

Being non-directive (giving information) includes:

- * Telling someone the facts so they can make their own decisions;
- * Enabling them to ask questions and discuss their concerns without pressure or fear of being judged.

4. Plenary feedback and discussion.

The facilitator draws together the main feedback following each of the roleplay and interview exercises, and encourages further discussion of the issues raised.

SOURCE MATERIALS

- NACO Manual, Module VII, pp.71-89
- NACO Manual, Module VII, pp. 65-69
- TISS Manual, Chapter VIII, pp. 1-46

SESSION 2: SEX AND SEXUALITY

AIMS:

1. To enable discussion of sex and sexuality;
2. To give information about safer sex;
3. To demonstrate the use of condoms.

ESSENTIAL INFORMATION:

- * Local and national sexual terminology;
- * Sexual practices;
- * Safer sexual practices;
- * Condom use.

ACTIVITIES:

1. 'What Are They Talking About?'

On a flipchart or overhead transparency, present the following examples of health education messages from different countries:

"When doing that which cannot be discussed, place that which cannot be described on that of which it is forbidden to speak".

"If it's not on, it's not on!".

"Take it off! Put it on!".

The facilitator then asks what these messages are saying, guiding the group in identifying the phrases that represent sexual vocabulary that can not be stated explicitly. For example, in statement number one, "when doing that" means "when having sexual intercourse, and "place that" means place a condom, and "on that" means on the penis. Thus the statement should read:

"When having sexual intercourse, place a condom on the penis".

Similarly, the last two statements respectively mean:

"If the condom is not worn, sex will not happen", and

"Take off the underclothes", "Put on a condom".

The facilitator concludes that ways of discussing sexual activity can always be found that avoid giving offence.

2. Sexual Terminology

The facilitator presents a flipchart with a list of words representing sexual issues, body parts, and bodily activities associated with sexual activity and sexual transmission of

HIV. They ask participants to suggest words and phrases that describe these issues in (a) technical local language, and (b) local slang. If the participants find they are unable to say the words, they should be invited to write them. All responses are written on the flipchart.

For example, local workshops have revealed the following terms for "sexual intercourse":

Technical: Sambhog, Milna ("to meet")

Slang: Chodna ("fuck").

Other words to be discussed may include:

Semen, vaginal fluid, masturbation (male and female), sexual excitement, penis, vagina, ejaculation.

3. Safer Sex:

The facilitator introduces this session by stating the rationale behind safer sex is to:

1. Prevent sexual transmission, by encouraging avoidance of contact between sexual organs of one partner (penis, vagina, anus, mouth) and bodily fluids of the other partner (semen, vaginal fluids, blood).
2. Maintain sexual satisfaction.

Using the flipchart to record what is said, the facilitator asks the group to identify safer sexual practices and then to place them in order of increasing theoretical risk.

Overhead 1 ("Safer Sexual Activities") may be used to summarise the discussion.

4. Condom Use:

The facilitator introduces this session by referring to the previous discussion on safer sex and highlights that penetrative sexual intercourse using condoms is one safer sexual activity.

Condoms are given to participants, and, using a model of a penis (e.g., dildo, banana, bottle), two participants are requested to demonstrate the following:

- * Opening the condom packet safely
- * Preparing the condom for placing on the erect penis
- * Putting the condom on the penis
- * Removing and disposing of the condom

The other participants are then invited to discuss the demonstration and to make additions where necessary.

The facilitator summarises this session by using the Tanzanian STD Manual condom use cards (Overheads 2-6).

The facilitator may then demonstrate the use of the female condom, if one is available.

The session ends with a discussion of participants' questions, misconceptions, feelings and attitudes towards condom use.

SOURCE MATERIALS

NACO Manual, Module IV, pp. 38-45

NACO Manual, pp. 163-166

Condom Use Overheads

SESSION 3: ATTITUDES AND VALUES

AIMS:

1. To show how cultural and individual values can influence HIV/AIDS counselling;
2. To illustrate that positions taken on contentious issues may have different legitimate justifications depending on one's values, attitudes and sometimes misconceptions.

ACTIVITY:

"Taking Sides"

The facilitator divides the room into four, each area marked with either "strongly agree", "somewhat agree", "strongly disagree", or "somewhat disagree". The facilitator then reads out a controversial statement, and asks participants to assemble in that part of the room which suits their level of agreement with the statement. The facilitator then encourages an exchange of views, using the debate to highlight the different positions held.

After the main issues have been aired, with each section of the room having been given enough time to have their say, participants are invited to move to groups that may have convinced them to change their views.

Controversial statements may include:

- * Prostitutes are the main group responsible for HIV spread.
- * HIV-infected mothers should not have children.
- * All HIV-infected people should be isolated.
- * The partners of HIV-infected people should be informed.
- * All patients undergoing surgery should be compulsorily tested for HIV.
- * All surgeons should be tested for HIV.

SOURCE MATERIALS:

Module III of NACO Counselling Training Manual, pp. 30-37.

SESSION 4: PRE-TEST COUNSELLING

AIMS:

1. To clarify steps in preparing individuals for HIV testing and waiting for the result;

2. To review the process of risk assessment and personalising of preventive education messages

ACTIVITIES

1. Roleplaying with paper cases

Use cases on Overheads 7 and 8 (Kishore and Deepak) for roleplaying pretest counselling, according to the plan for roleplays suggested above. Discussion following the roleplays may focus on the following:

1. The value of emphasising confidentiality in pre-test counselling;
2. How counselling at this stage can engage the client as a member of the behaviour change and support "team";
3. Pre-test counselling encourages personally relevant HIV education and high-risk behaviour prevention, following assessment of the person's HIV risk and understanding of HIV;
4. The value of assessing the person's reason for being tested - it may rest on misconceptions about HIV transmission;
5. The importance of identifying the person's strategies for coping should their test result be positive.

The facilitator sums up this activity by briefly reviewing the main points of the discussion about the cases, and by also reinforcing the steps in pre-test counselling outlined in Overhead 9.

2. Examining the need for informed consent:

Informed consent may be a contentious issue in many settings where HIV testing takes place. This activity encourages the whole group to "brainstorm" (openly express ideas without reservation) the following:

- * Advantages of informed consent;
- * Situations where informed consent is necessary;
- * Implications that may follow from not taking informed consent;
- * What may be needed to encourage the taking of informed consent in areas of practice, e.g., surgery.

Participants should be encouraged to give examples of each of these from their own clinical experiences.

SOURCE MATERIALS:

TISS manual, Chapter IX: Some Specific Counselling Situations, pp. 11-18.

SESSION 5: POST-TEST COUNSELLING

AIMS:

1. To rehearse and prepare for breaking bad news;
2. To outline steps in managing crises after giving HIV test results in the immediate term, the short term, and the medium term.

ACTIVITIES:

1. Plenary discussion on breaking bad news

The facilitator begins by asking the group what reactions they may observe in the patient receiving bad news. These are listed on a flipchart and discussed briefly. Participants are then asked to identify and discuss the implications of these reactions from their own clinical experience. Implications may include:

- * The need to allocate more time for being with the patient;
- * The need to plan the setting in which results are given, including the place, the time, and support on hand;
- * The need to prepare for containing acute distress reactions.

2. Roleplay exercises: Managing HIV test result-giving

The group is divided into three. Each smaller group is given the same paper case to discuss and roleplay (Overhead 7). One small group is to roleplay Kishore receiving a negative test result, one roleplays a positive test result, and one roleplays an equivocal test result. Roleplays may be conducted according to the suggestions given above. Once the groups have come back to a plenary discussion, participants are encouraged to consider the possible issues emerging from each scenario. The facilitator summarises discussion by focussing on the main issues in post-test counselling (summarised in Overhead 10A and 10B).

3. Stages in crisis management

Using the paper case on Overhead 11 (Arun), two participants are asked to volunteer to be either the counsellor or the person being counselled, and to roleplay the case in front of the whole group. After the roleplay, participants are encouraged to consider how to manage the crisis in the immediate and short terms (up to one month). They may also be encouraged to consider implications for the patient in the longer term.

The discussion that follows may also be used to bring out related issues as follows:

- * The importance of focussing on areas seen by the patient as critical, and of working at the patient's pace;
- * The importance of having clear procedures for crisis management planned in advance of the need to use them;
- * The need to obtain clear information from the patient about what they plan to do in the immediate term, and to give essential information on basic prevention and coping;

- * The importance of offering short term follow-up for the patient and their family and loved-ones, as appropriate.

The essentials of post-test counselling are presented as a summary to the discussion (Overhead 10B).

SOURCE MATERIALS

TISS Manual, Chapter 9, pp. 18-30.

SESSION 6: INTEGRATING COUNSELLING INTO THE DAY-TO-DAY WORK OF THE PHYSICIAN

AIMS:

1. To illustrate that it is possible to introduce counselling in the day-to-day work of the physician;
2. To identify means for enhancing the practice of counselling in their day-to-day work (e.g., methods of allocating more time to people with HIV).

ACTIVITIES:

One or two physicians experienced in HIV/AIDS care are asked to share their experiences of HIV/AIDS management, the role counselling has played and could play in view of their present participation, and how they have re-organised their services to accommodate the special needs of people with HIV.

Other participants are encouraged to discuss the ways they have managed related difficulties in the context of other diseases, and how they foresee dealing with such situations in the future.

In particular, participants are asked to focus on practicalities, such as the re-organisation of services and the training of staff.

SESSION 7: COUNSELLING CASE DISCUSSION

AIMS:

1. To encourage reflection on how participants are **presently** using some counselling techniques in their work;
2. To examine how counselling has been used in selected cases from the participants' own experience, and to explore alternative counselling interventions.

ACTIVITIES:

The prior day, two selected participants have been invited to write cases drawn from their own clinical counselling experiences.

They are each invited to describe their case to the whole group in this session, and the group is invited to ask for questions of clarification.

The participants are then divided into two groups to roleplay the cases in the usual manner.

The facilitator for this session encourages discussion of alternate ways of dealing with the cases.

SESSION 8: RESOURCE MOBILISATION

AIMS:

1. To generate awareness of local resources for support of (a) the client, and (b) the counsellor;
2. To outline steps in, and priorities for, networking.

ACTIVITIES:

The facilitator asks the whole group to brainstorm potential supports for the patient and the counsellor at different levels -hospital/clinic, family, community, state.

The facilitator writes all suggestions on a flipchart.

The group is then asked to prioritise who should be approached first from amongst these potential supports.

The facilitator then leads a discussion, emphasising

- * the importance of planning for support in advance of the need to use them;
- * the need for personalised contacts in building up the network for their area.

OVERHEAD 1

SAFER SEXUAL ACTIVITIES

TALKING, WRITING OR READING ABOUT SEX

WATCHING SEXY MOVIES AND LIVE SHOWS

INDIVIDUAL MASTURBATION

DEEP KISSING

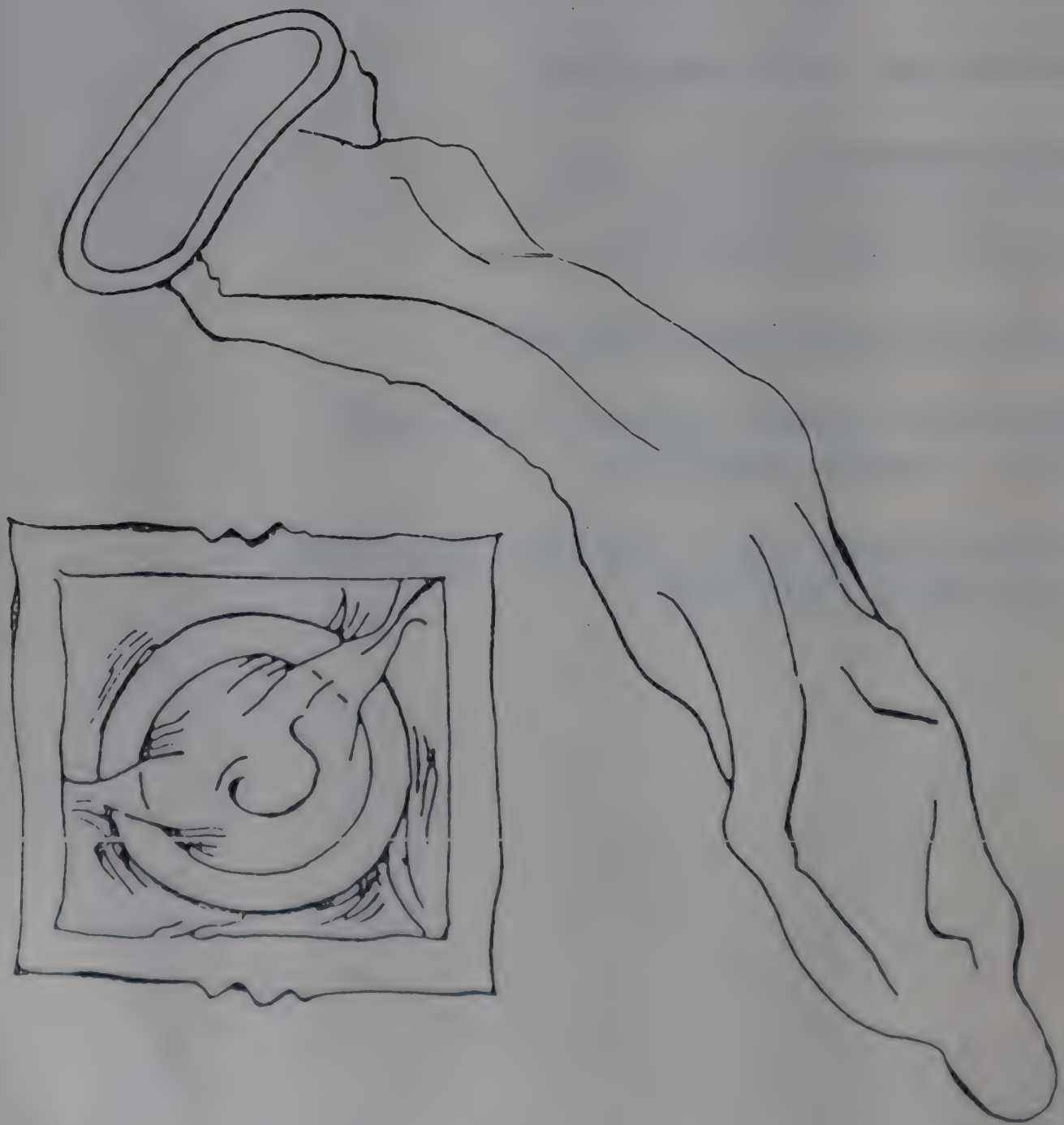
MUTUAL MASTURBATION

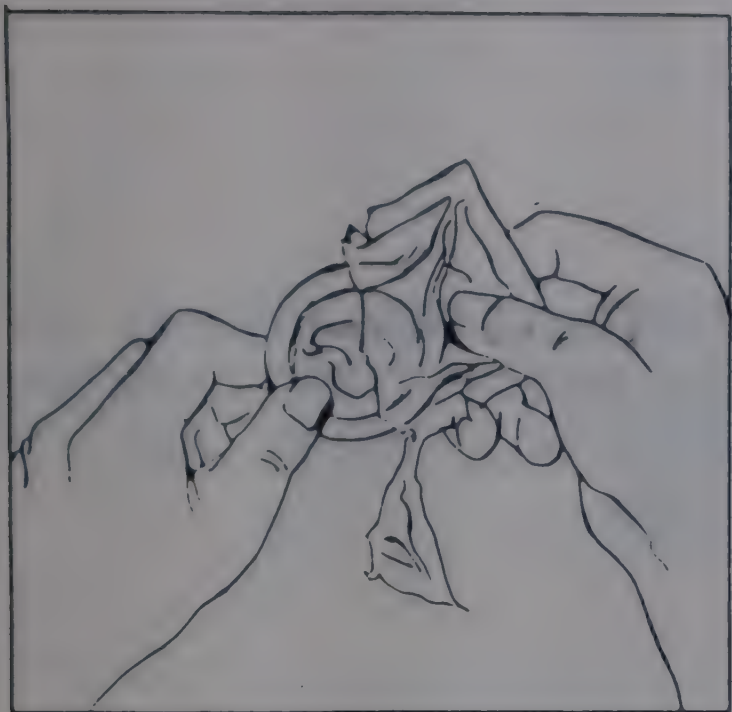
SEX WITH UNDERCLOTHES ON

SEX WITH OTHER PARTS OF THE BODY
(E.G., THIGHS, BREASTS)

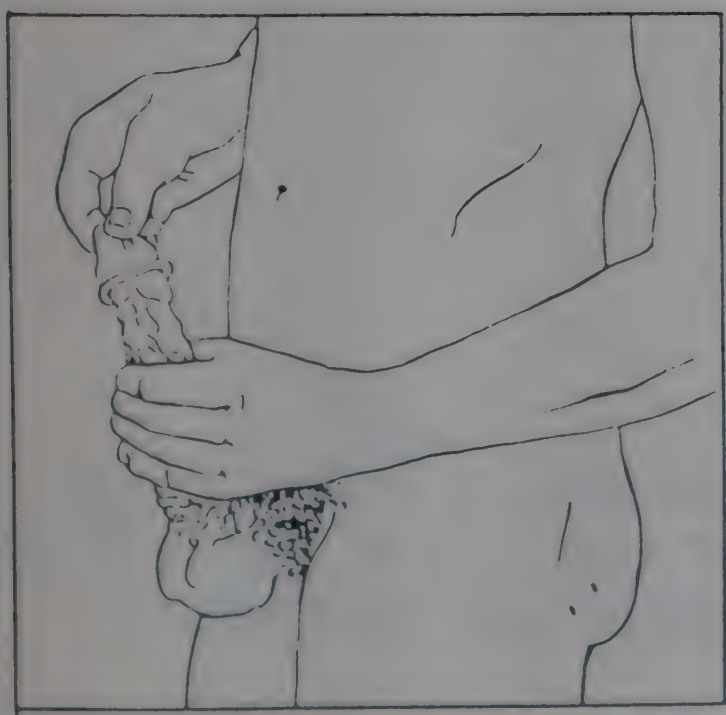
PENETRATIVE ORAL, VAGINAL AND ANAL
SEX USING CONDOMS

CONDOM USE CARDS

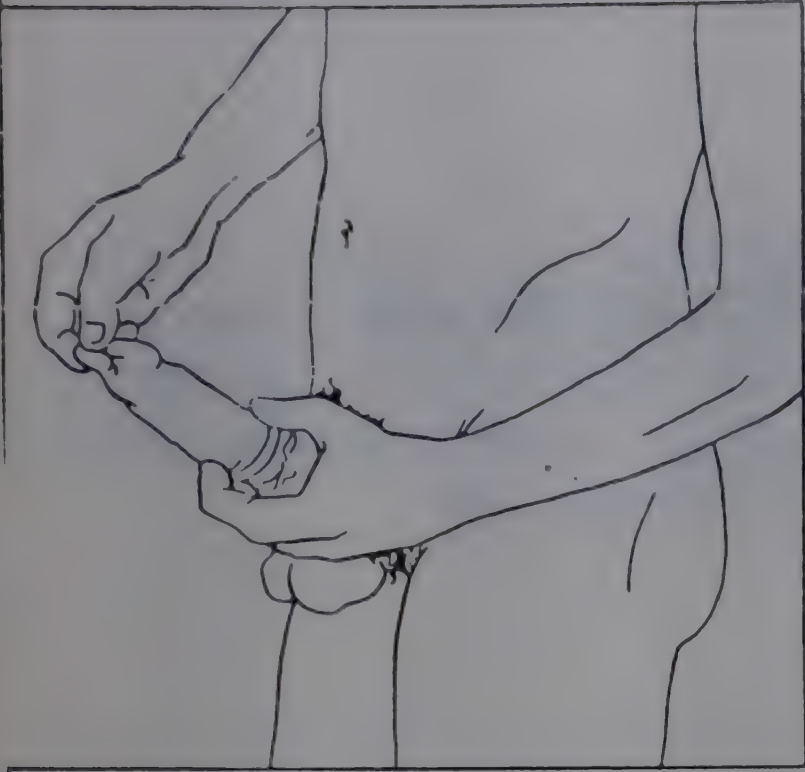




CAREFULLY OPEN THE PACKAGE SO THE CONDOM DOES NOT TEAR. DO NOT UNROLL CONDOM BEFORE PUTTING IN ON



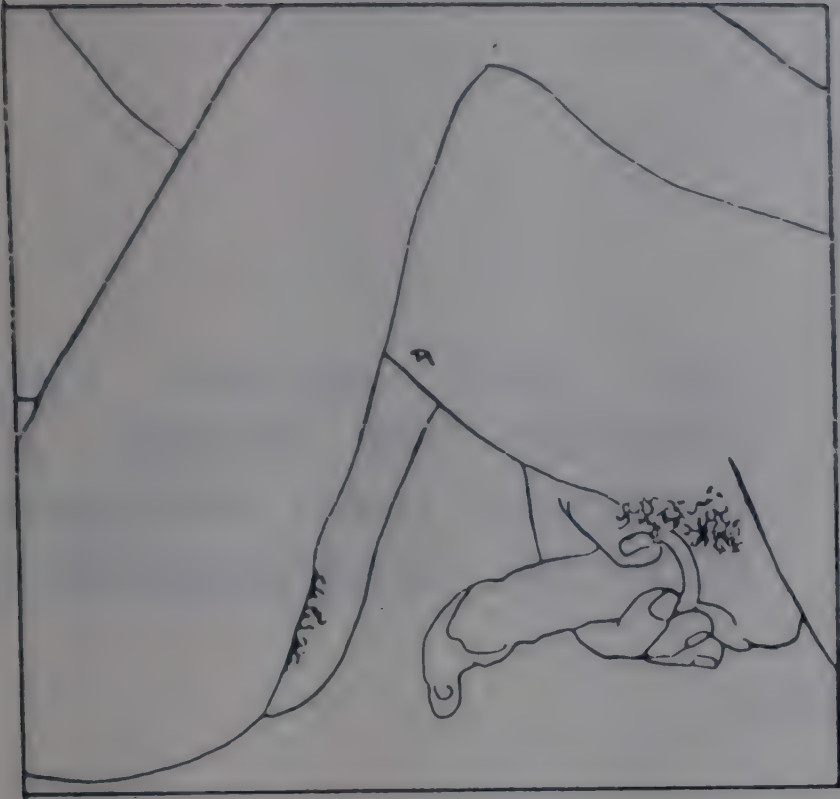
IF NOT CIRCUMCISED, PULL FORESKIN BACK. SQUEEZE TIP OF CONDOM AND PUT IN ON END OF HARD PENIS



CONTINUE SQUEEZING TIP
WHILE UNROLLING CONDOM
UNTIL IT COVERS ALL OF
PENIS



ALWAYS PUT ON A
CONDOM BEFORE
ENTERING PARTNER



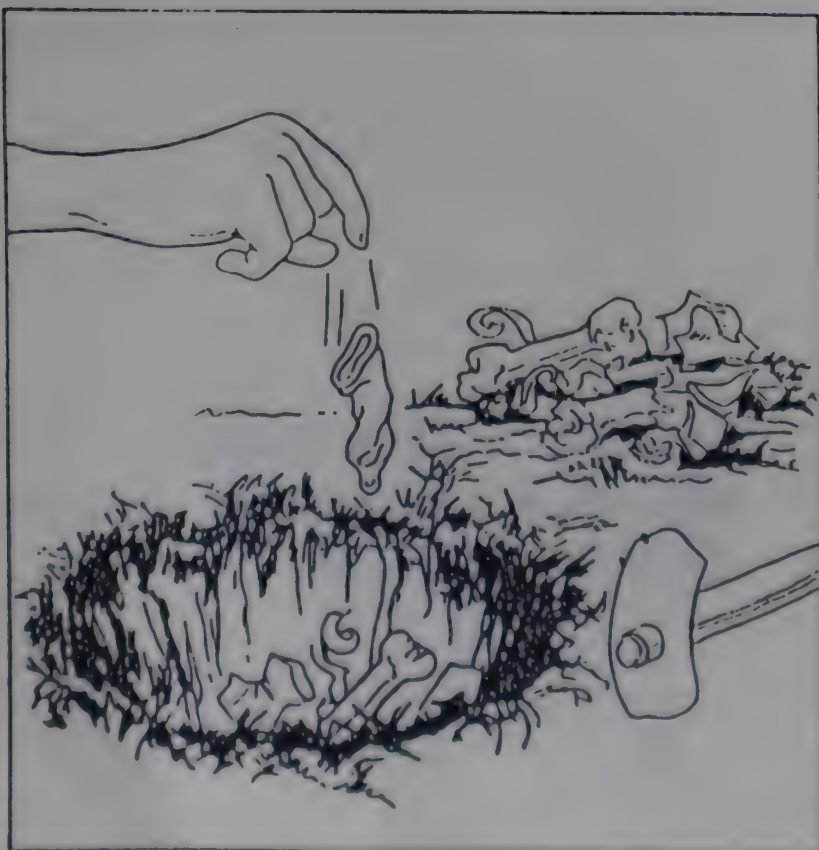
AFTER EJACULATION
(COMING), HOLD RIM OF
CONDOM AND PULL PENIS
OUT BEFORE PENIS GETS
SOFT



SLIDE CONDOM OFF
WITHOUT SPILLING LIQUID
(SEMEN) INSIDE



**TIE AND WRAP THE
CONDOM (IN PAPER, IF
AVILABLE) THEN THROW IN
DUST BIN. WASH HANDS.**



**BURN OR BURY THE
CONDOM WITH OTHER
TRASH. WASH HANDS.**

OVERHEAD 7

KISHORE

KISHORE IS A 32 YEAR-OLD MARRIED MAN WITH TWO CHILDREN. HE HAS BEEN HAVING AN AFFAIR WITH ANOTHER MARRIED WOMAN, USHA, FOR THE LAST TWO YEARS. A FRIEND OF KISHORE HAS RECENTLY BEEN FOUND TO BE INFECTED WITH HIV. KISHORE IS WORRIED ABOUT HIS WIFE AND CHILDREN. HE COMES TO YOU SEEKING HELP.

OVERHEAD 8

DEEPAK

DEEPAK IS A HAEMOPHILIAC WHO HAS RECEIVED THREE SEPERATE BLOOD TRANSFUSIONS. HE HAS BEEN LOOKING THIN AND WEAK AND HAS BEEN GETTING BOUTS OF 'FLU AND DIARRHOEA. HIS MOTHER HAS BROUGHT HIM TO HOSPITAL FOR A CHECK-UP.

OVERHEAD 9

CHECK-LIST II: COUNSELLING PEOPLE WITH HIGH RISK BEHAVIOUR

PRETEST COUNSELLING

1. EMPHASISE CONFIDENTIALITY
2. EXPLORE HIGH RISK BEHAVIOUR
 - a) Unsafe sex practices (consider spouse's behaviour)
 - b) I.V. Drug use (shared needles/sex with user)
 - c) Blood/Blood products received
3. EXPLORE HIV/AIDS KNOWLEDGE
 - Explain HIV/AIDS
 - Clarify misconceptions
4. EXPLORE TEST IMPLICATION: IN RELATION TO PATIENT'S LIFE SITUATION (e.g. MARRIAGE, PREGNANCY, ETC.)

Explain that the test is for antibodies to HIV not an AIDS test

 - Meaning of negative result
 - Meaning of positive result
5. REASON FOR TESTING
 - a) If negative
 - confirms lack of antibodies

(Caution: window period - consider repeat test after 3 to 6 months)

 - removes uncertainty

(Caution: does not mean immunity against HIV)

Overhead 9 (Cont...)

b) If positive

- know for sure
- make adaptive change in life style
- protect sexual partner
- protect self - medical care
- plan for future - financial, legal, emotions
- disadvantages
 - explore expected reactions
 - available social supports

6. WHO SHOULD KNOW RESULT?

- Discuss implications/discrimination
- Partner notification/testing

7. PRACTICALITIES OF TEST - SAMPLE COLLECTION, GETTING RESULT, GIVE APPOINTMENT

8. ASSESS STRATEGIES FOR COPING

- Evaluate past handling to stressful situations
- Evaluate patient's social support network

9. PREVENTIVE EDUCATION

- Safe sex
- Proper use of condoms
- Clean needle use
- Reconsider life style
- Spread HIV/AIDS prevention message

OVERHEAD 10B

CHECK LIST IV : COUNSELLING PEOPLE WITH HIGH RISK BEHAVIOUR

POST-TEST : TEST POSITIVE

1. RENEW RELATIONSHIP
2. FOLLOW PATIENT'S LEAD WHEN TO DISCLOSE
3. STATE RESULT CLEARLY
4. WAIT
 - Give time to absorb information
 - Give time for expression of feelings
 - LISTEN
5. INTEGRATION OF RESULT
 - a) Intellectual :
 - explore understanding
 - clarify misconceptions
 - b) Emotional :
 - assess emotional impact
 - validate reactions as normal
 - c) Behavioural :
 - assess commitment & understanding to risk reduction
 - explore factors related to general health and immune functioning (stress nutrition, exercise, substance abuse, re-exposure to virus)
 - d) Interpersonal :
 - re-explore who to inform
 - impact on partner, family, friends employer
 - how to break news (offer help and support)
 - plan to maximise support and minimise stress
 - e) Medical :
 - plan health/early intervention. avoid quacks

OVERHEAD 10A

CHECK LIST III : COUNSELLING PEOPLE WITH HIGH RISK BEHAVIOUR

POST-TEST : TEST NEGATIVE

1. RENEW RELATIONSHIP
2. EXPLAIN NEGATIVE RESULTS
 - Give time to absorb information
 - Allow time to express feelings
3. EXPLAIN LACK OF IMMUNITY
4. CHECK BACK TO CONFIRM UNDERSTANDING
5. CLARIFY DOUBTS/MISCONCEPTIONS
6. EVALUTE NEED FOR RETEST
7. ADDRESS "SURVIVOR" REACTIONS
8. REPEAT PREVENTIVE EDUCATION
 - Safe sex
 - Proper use of condoms
 - Clean needle use
 - Reconsider life style
 - Spread HIV/AIDS prevention message

Overhead 10B (Cont....)

6. AROUSING HOPE : ADVICE AND EMPOWERMENT

- a realistically hopeful message without discounting concerns
- focus on quality of life
- empower participation in health issues
- no cure yet but let us hope
- express your availability when needed

7. PLAN FOR FUTURE COURSE OF ACTION

- focus on need for ongoing support,
stress, anxiety, depression, anger
substance abuse
sexual & interpersonal issues
financial, occupational, legal, medical needs
- resources?
individual therapy
support groups
social network
religious strengths

8. PROVIDE APPROPRIATE BROCHURES FOR PATIENTS

OVERHEAD 11

ARUN

ARUN IS A 27 YEAR-OLD BACHELOR WORKING IN A MANUFACTURING COMPANY. SINCE HE STARTED WORKING 4 YEARS AGO HE HAD BEEN VISITING PROSTITUTES. HE HAS BECOME ENGAGED TO BE MARRIED. HIS COMPANY, AS PART OF THEIR AIDS AWARENESS PROGRAMME, HAS ASKED EMPLOYEES TO VOLUNTEER FOR HIV TESTING. ARUN VOLUNTEERED AND HIS RESULTS SHOW HE IS HIV POSITIVE. ON HEARING HIS RESULT HE IS VERY UPSET AND DOES NOT KNOW HOW TO FACE HIS PARENTS AND FIANCEE.

